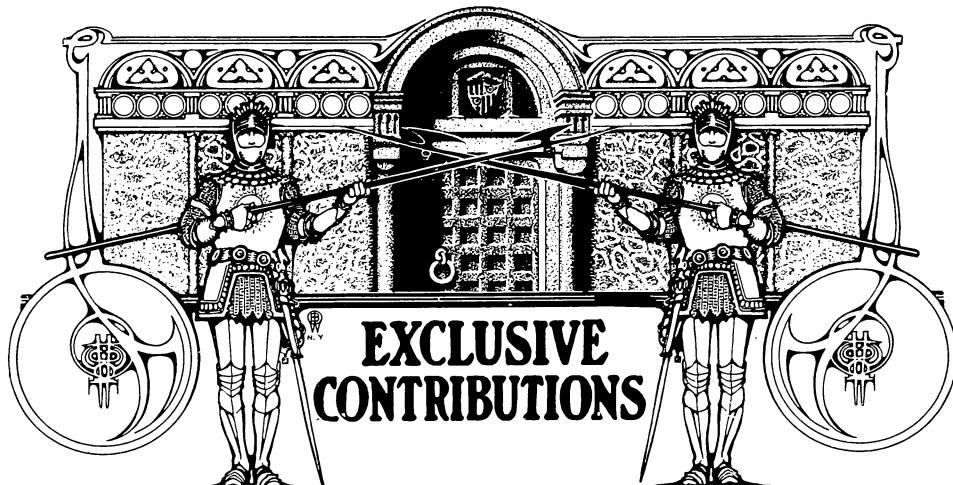


DR. DWIGHT M. CLAPP.



## Methods of Filling Teeth with Gold Inlays.\*

BY DR. THOMAS P. HINMAN, Atlanta, Ga.

### Large Morsal Cavities in Molars.

In large morsal cavities in the molars, prepare the cavity as usual, avoiding undercuts and if the cavity be very deep, fill a portion of it with cement (Fig. 51). Take a piece of annealed inlay gold considerably larger than the cavity and press in place with a pledget of wet cotton. Mallet on the cotton with the orangewood plugger and automatic mallet. Remove the cotton and burnish the matrix well to the cavity walls. It is not always necessary to burnish the matrix to the entire floor of the cavity, except where the cavity is shallow. If any tears occur in the bottom of the matrix they should be filled with cylinders or pieces of foil. Remove the matrix, thicken with 22K solder, trim and replace in the cavity, reburnishing the margins (Fig. 52). Place on the soldering block and fill level without investing. Roughen the under side, cement in position, grind to an occlusion and polish (Fig. 52).

This plan of filling large cavities in the molars has been used with marked success in teeth of children, as it can be accomplished without the aid of a rubber dam. These fillings should be driven to place with a mallet, using a piece of steel or a driver. The sulci may be simulated by cutting the inlay with a sharp round bur.

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ITEMS OF INTEREST

**Buccal Cavities  
in Molars**

In extensive cavities in the buccal surfaces of molars, these cavities may be divided into two classes.

First: Those which do not involve any of the occlusal enamel.

Second: Those that are sufficiently large to involve the occlusal enamel. In treating the first class, prepare the cavity so that it will contain no undercuts, beveling the margins slightly outward, so as to cause



FIG. 51.



FIG. 52.



FIG. 53.



FIG. 54.



FIG. 55.



FIG. 56.

the finished inlay to lap the enamel. Give the cavity sufficient irregularity of shape, so that there will be no possibility of the filling being placed in the cavity in a reverse position during the process of cementing.

Make the walls practically parallel, using a square end fissure bur in the right angle attachment (Fig. 54). Cut a piece of inlay gold somewhat the shape of the outline but considerably larger than the cavity; force it down to place with a large pledget of wet cotton. Mallet the cotton with the automatic mallet and orangewood plugger. Remove the cotton, burnish the matrix to the margins and to the bottom of the cavity. In very deep cavities, where the pulp is nearly exposed, it will be found wise not to burnish the matrix well to the floor of the cavity, but simply to burnish it to the walls and margins. This leaves a space in the bottom of the cavity for a bulk of cement thus protecting the pulp from thermal changes.

Remove the matrix, thicken with 22K solder (Fig. 55) and return the thickened matrix to the cavity, reburnishing the margins. Be sure that the matrix slightly laps the gingival wall so that it can be brought well under the gum margin with a flat burnisher. Remove the thickened matrix from the cavity and fill level full with 22 or 20K solder.

Slightly undercut the cavity and roughen the inlay well on the under surface. Partially polish the buccal surface, leaving only a very slight lap on the gingival border.

Flow the cavity and smear the margins with creamy cement, putting a portion of the cement on the inlay.

Force it to place with some instrument with which considerable pressure can be exerted. Apply heat as quickly as possible to the inlay, so as



FIG. 57.



FIG. 58.



FIG. 59.

to hasten the setting of the cement: finish and polish as usual (Fig 56).

**Compound  
Occluso-Buccal  
Cavities.**

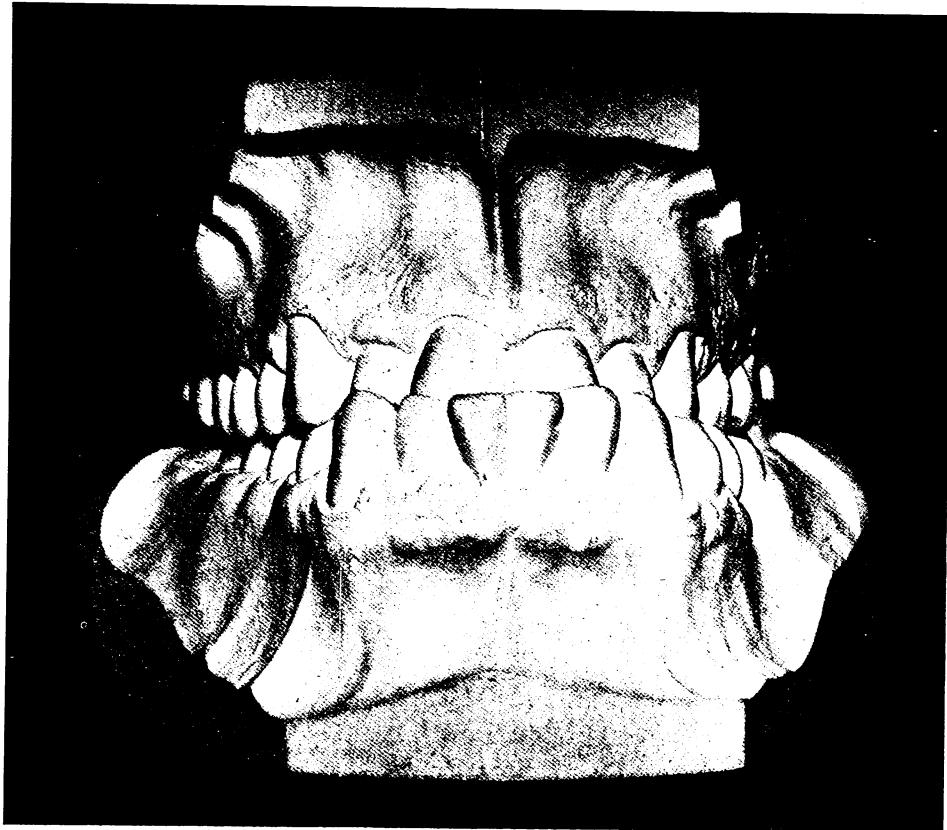
In a cavity where a large portion of the enamel has been lost between the mesial and distal buccal cusps, including a loss of half each, it is best to cut away any enamel, unsupported by dentine.

Flare the cavity towards the bucco-mesial and distal angles. For anchorage, cut through the buccal groove into the crown, extending this groove mesio-distally, so as to form a doll-head (Fig. 57). The matrix is made practically as in the simple cavities: Thicken with 22K solder and reburnish in the mouth; then remove from the mouth and invest in sump.

Fit a piece of 22K, 28 gold plate 1-32 inch wide, from the mesial to the distal cusp and solder to place (Fig. 58). This contour piece will draw the solder and restore the lost portions of the cusps.

The buccal groove should be restored by cutting the inlay after it has been set. This may be done with a small corundum stone. The sulci, however, are cut with a sharp round bur.

Another method may be used to advantage and is as follows: After the matrix has been placed in the cavity and reburnished, soft modeling compound (dry heated) is forced over the tooth and matrix and the patient directed to bite into the mass; the soft modeling compound is pressed to the buccal sides of the teeth with the fingers. The modeling compound is now chilled, and removed from the mouth, bringing with it the matrix. A model is run in sump and placed in a small crown articulator. After the modeling compound has been removed, restore the missing portion of the cusp in hard wax, shaping it so as to form a good occlusion. Over this hard wax, burnish .900 annealed pure gold, investing and soldering the inlay as described for compound inlays in bicuspids, using the vent wax to draw the solder and prevent bubbles.



THE ABOVE IS MADE A SPECIAL FEATURE AS AN EXAMPLE OF A PERFECT ILLUSTRATION  
FROM A PERFECT PHOTOGRAPH, OF A PERFECT MODEL, FROM A PERFECT  
IMPRESSION. A SMALLER PICTURE OF THE SAME IS FIG. 7, IN  
DR. MCKAY'S ARTICLE.



## A Critical Contrast Between the Old and the New Schools in Orthodontia.

By FREDERICK S. MCKAY, D.D.S., St. Louis, Mo.

*Read before the American Society of Orthodontists, September, 1905.*

What was probably the first public reference to any such institution as a "new school" in orthodontia occurred in a paper presented before this society at its third annual meeting at Buffalo in January, 1904.

This paper dealt in a very graphic way with the conception that the majority of dentists have held of this subject, and indicated that these conceptions were passing, and that the science had emerged into a higher phase of excellence. This term "new school," as it has appeared from time to time and with increasing frequency in papers, discussions and published articles, has evidently been a "thorn in the flesh" to many men, particularly those who have been considered authorities on orthodontia.

Considering the "new school" movement as not only an advance, but also as a reform, like all other reforms, no matter how beneficent, it has been met with opposition.

As the evidence pointing to the correctness of its teaching has steadily accumulated during the past three or four years, until at present it is overwhelming, the opposition from the rank and file of our profession has steadily decreased, until there are but few who offer any strong objections.



I doubt whether at the time this name was coined it was realized what a far-reaching influence it was destined to have, or whether those who first heard it, knew that a reform had begun. Men heard the name without realizing what they listened to.

The "old school," at least to be known as such, is something which has developed since then. At that time there was no "old school." There was simply the difference between the "new school" and no "school" at all. It was the beginning of classified knowledge in orthodontia. Naturally there are those who have objected to having their time-honored theories overthrown, and these gentlemen have grouped themselves as the "old school." This is my definition of the same.

Aside from objecting to the general upsetting **Disputed Points** which the "new school" teaching has brought about, **Settled.** there must, at the same time, be honest differences of opinion on certain points which separate the two schools. These differences are confined exclusively to orthodontists. The dental profession as a whole is neither on one side nor the other, beyond holding the merest opinions in the matter.

Such a point as early treatment of developing malocclusion has ceased to be a difference. It was one of the points, which early in the movement caused some discussion, because of its reversal of the frequent advice given before the advent of the "new school," to allow these deformities to reach full dental development before treatment.

Orthodontia has passed beyond that. The "new school" has won this point without a single dissenter.

The reform in appliances has also progressed, until the machine-made, standard, universal form is the one generally and most satisfactorily used.

**Extraction.** There are, as yet, however, certain major points upon which agreement has not been reached and while for a considerable time it has seemed to be impossible to confine our opponents to real, practical, everyday cases and treatments, instead of imaginary, hypothetical cases and monstrosities, the recent issues of some of our journals at last seem to furnish us with material from which an argument can be conducted. One of the first points upon which our opponents took issue with us was in regard to the necessity of extracting teeth in the treatment of certain cases; and the dictum of the "new school" urging the abandonment of this practice, because it had found that it is no longer necessary, and because it is detrimental to the best results or even satisfactory results, was met with a storm of protest. Paper after paper has been delivered on this very point, and case after case illustrated, showing the truthfulness of



## ORTHODONTIA

our position, until it ought not to be necessary longer to consider the subject of extraction as holding any place in a discussion on orthodontia.

In the early days, the extraction of teeth was considered a necessary part of orthodontic operations, because we had not developed the means for expansion and other tooth movement, which we have to-day. In fact, the amount of expansion and the distance that teeth can be moved safely, as illustrated by present day results, would in those days have been considered generally, as out of any range of possibility.

For these reasons, I repeat, extraction was considered necessary, and was practiced to almost any degree. It was supposed to simplify matters and was done because men knew no other way.

We all remember the time when the first molars were sacrificed; not one, but all four at times; but let me say, that such work was never upheld by either "school," but was almost invariably perpetrated by the general practitioner of dentistry who had no other guide than his own "judgment," which we now know was sadly in error in such cases. This practice, owing to the increase of our knowledge, and to the protests of the non-extractionists, has, I am glad to say, almost disappeared, but one is surprised, yes, shocked, once in a while to find that there are men, and these in our very largest centers of civilization, who still believe this method to be right.

We have also reached a point where, among men who lay any claim to any special knowledge of orthodontia, the sacrifice of the anterior teeth, above or below, is almost obsolete, and the fight has narrowed down until our defense is concentrated upon saving the bicuspids from the slaughter.

And here the situation changes. Instead of meeting our strongest opposition from those outside our ranks, we are opposed by the very men who are working in our own field, except that their alliance is with the "old school." The dental profession, I think, as a whole is glad to know that since its aim and object is to save the teeth, no matter what condition they may be in, we as orthodontists no longer find it necessary to destroy any teeth. But not so these other gentlemen. They still insist that there are cases where it is necessary to extract the bicuspids, notwithstanding the fact that the "new school" has proven over and over again and in precisely similar cases, that better results can be obtained just as easily and more easily, when the full number of teeth is allowed to remain. To those who have kept a close watch upon the literature that has been offered upon the subject of orthodontia during the past two years, and especially during the past few months, the particular instance which in the mind of the "old school" seemed to demand extraction of the bicuspid teeth one from each side on the upper jaw, is that which is



## ITEMS OF INTEREST

known according to the classification now generally accepted (Angle) as Division 1 of Class 2, graphically represented by Figs. 1, 2 and 3.

Our opponents take the ground that this particular condition of mal-occlusion is divisible into several different phases, called by such names as "full protrusions" or "retrusions," or "partial protrusions" or "retrusions" and others signifying the relationship in terms of "protrusion" or

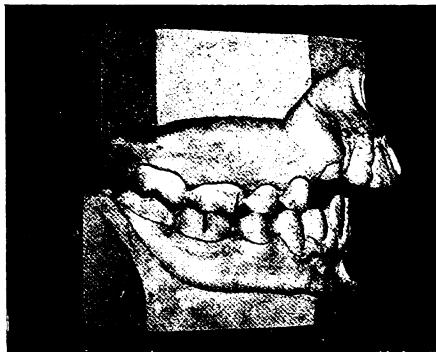


FIG. 1.

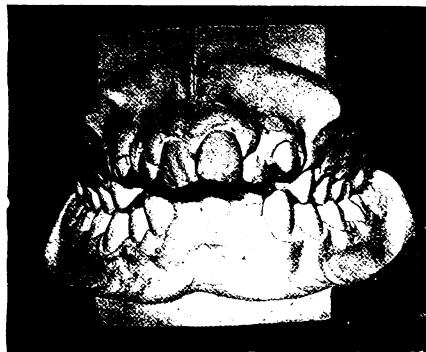


FIG. 2.

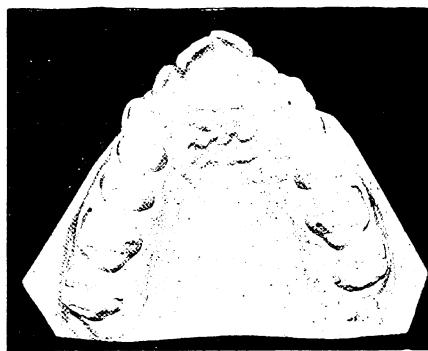


FIG. 3.

"retrusion" that one jaw may bear to the other or to the physiognomy. We are told that Fig. 4 illustrates five different phases, each presumably with its own classification. There are but five cases illustrated here, but this author's meaning is taken to be that the above is simply a sample of the almost innumerable phases that the first division of Class 2 may present. The etiology of this class of cases, the "new school" believes to be closely associated with, nay absolutely dependent upon, conditions found in the nose or naso-pharynx.

Because of the articles which have already appeared, dealing with this point, further discussion will not be entered into now. And yet the men who write along "old school" lines, for some reason deliberately ignore this factor as having any bearing upon the subject. That any such segregation as that indicated by Fig. 4 should be made in a class of cases, etiologically the same, similar as to detail and occlusion, and responding with the most gratifying results to a standard method of treatment, the "new school" emphatically denies.

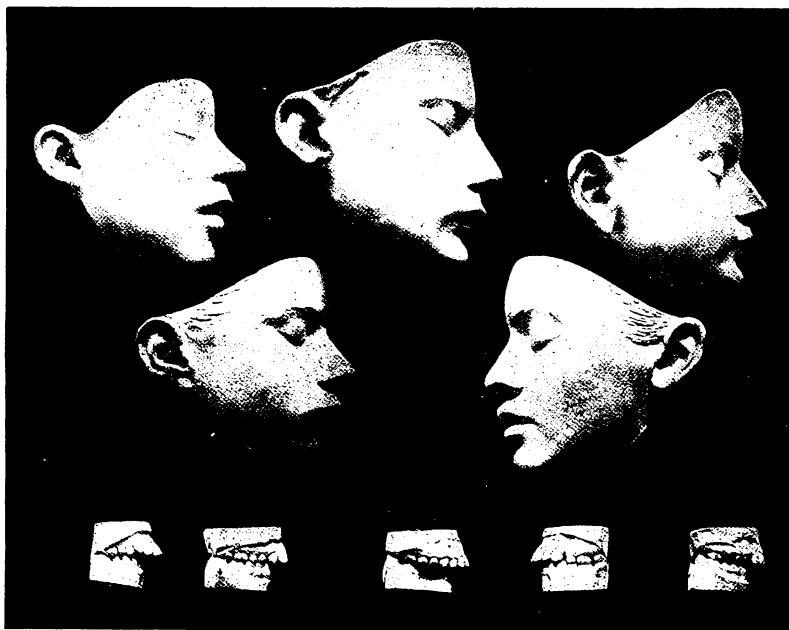


FIG. 4.

In passing, we wish to protest against such samples of photography of models as are shown in Fig. 4 because of the impossibility to gain anything like a comprehensive idea of the important features of a case. Imagine trying to study occlusal relations from such diminutive pictures of models as illustrated in Fig. 4. I trust that this author will pardon my suggesting that photography of models is a work of art, and that in justice to his readers, his illustrations should be presented in such a way as would allow the closest scrutiny from all sides, and of a size that would place the details within easy vision.

ITEMS OF INTEREST

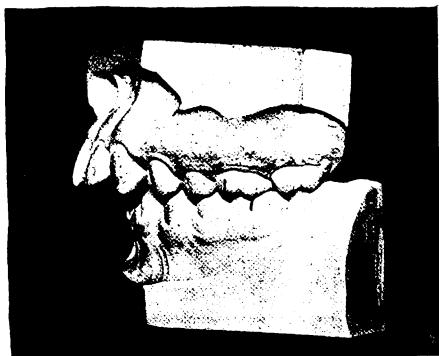


FIG. 5.



FIG. 6.



FIG. 7.

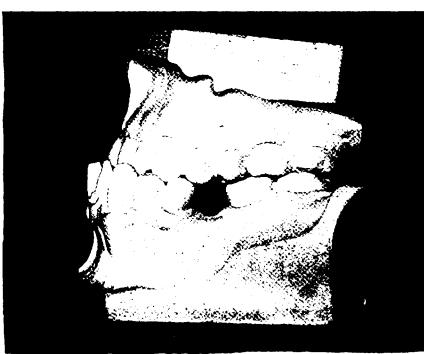


FIG. 8.

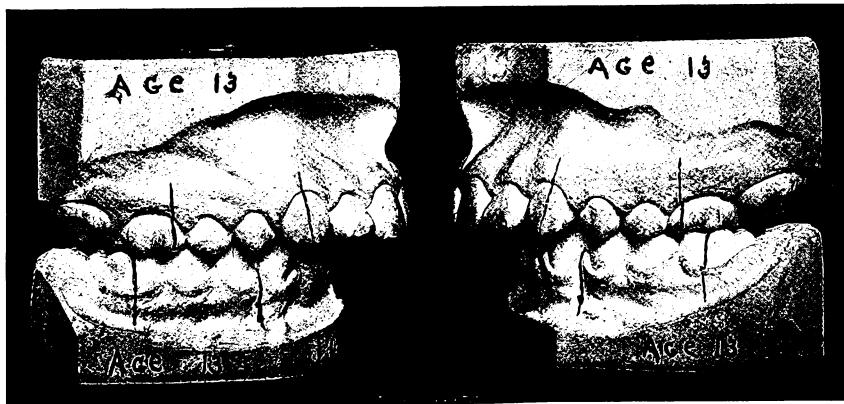


FIG. 9.

**Irregularity and  
Malocclusion.**

As to what constitutes an "irregularity" and in what way malocclusion refers to irregularity we meet with some peculiar statements, but none so peculiar as one saying that "the term malocclusion refers to only one phase of irregularity, as the teeth in normal occlusion may also be quite irregular," etc. Your essayist's conception of teeth in normal occlusion brings to view a picture showing the teeth in those positions with reference to each other, which nature intended them to occupy, and to which their anatomical shapes are best suited.

How such teeth can be "irregular" is something that is not apparent in any ordinary sense, but the author from whom I am quoting gives the term an extraordinary meaning, by implying that there is any considerable number of cases, where the overlying facial contour will be found to be inharmonious or unesthetic, when based upon a correct anatomical arrangement of the teeth.

Going a step further and considering the question of protrusion or retrusion in its true relation to art, teeth in normal occlusion will neither protrude nor retrude. Protrusion and retrusion are terms that relate to a general harmony of the face according to type or general characteristics, or the particular mold into which nature has fashioned any given face. The fleshy contour is dependent upon the underlying bony or dental tissue, and according as this tissue happens to be placed do the overlying parts adapt themselves.

In the same paragraph in which this writer tells us that in speaking of the terms "protrude" and "retrude," they should always refer to the relation which they bear to the normal dento-facial position, and not to the normal occlusal position, we find, in continuing the statement that "the disto-mesial malrelation of the teeth can in no instance be regarded as defining the character of an irregularity nor as a guide to its proper treatment." Which reduced to every-day form, means that the positions of the molar teeth for instance in the following illustrations (Figs. 5 to 9 inclusive) can not be used to determine the character of the deformity.

After evidence of this sort the question is not "How can the disto-mesial malrelation of the teeth be regarded as defining the character of an irregularity?" but instead, "How can any one doubt it?" There seems to be an incongruity in the words of this very author himself, for he says in the same paper, agreeing with Dr. Angle, that "the first permanent molars are the true bases of their respective dental arches, the relative antero-posterior positions of which are largely influenced by the relative mesio-distal positions which these teeth assume in the jaws." This would make it appear that the question were settled and no further argument needed.

Continuing in this author's article we find this paragraph: "In a large proportion of irregularities for youths there will be found no marked dento-facial inharmony; and even those facial imperfections that are caused by a mal-relation of the teeth in occlusion will frequently disappear upon proper corrective treatment after being followed by the harmonizing influences of growth. Therefore in all these cases, however jumbled the irregularity, the rule should be *imperative* that we strive to produce a typically normal occlusion—an attainment that is impossible

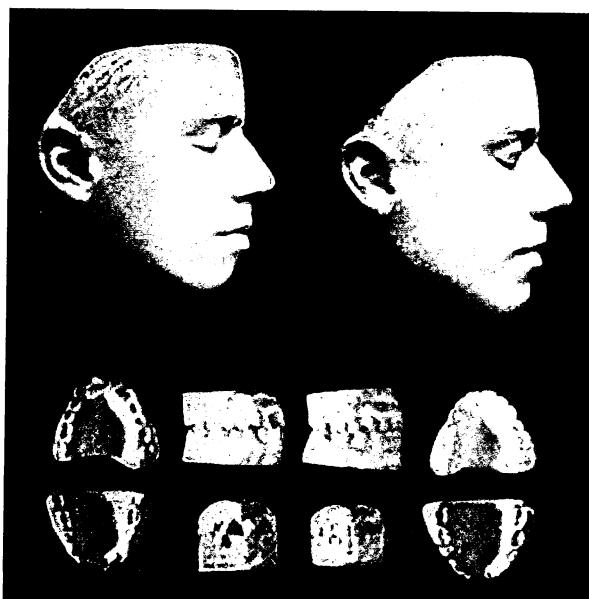


FIG. 10.

where teeth are extracted merely to simplify the operation or under the mistaken impression that regulation can not otherwise be accomplished."

One other quotation from the same authority. He says in another and earlier communication,—"with all the ordinary, crowded malpositions, it is always possible to place all of the teeth in proper arch alignment and pose; therefore that phase of the subject, that they are crowded and irregular, should never enter into the question." This is in reference to the advisability of extracting. It had almost seemed, judging from this author's published statements, as though this question of extraction had come down to but one condition which in the mind of the "old school"

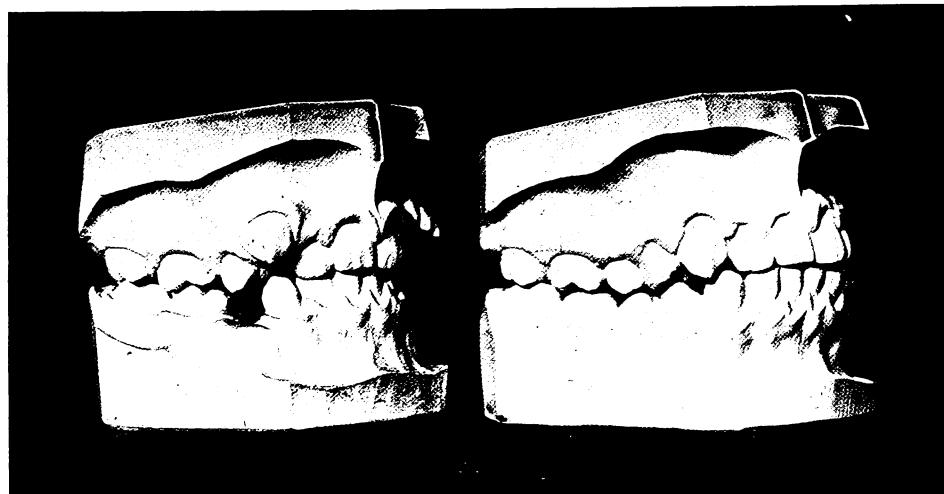


FIG. 11.

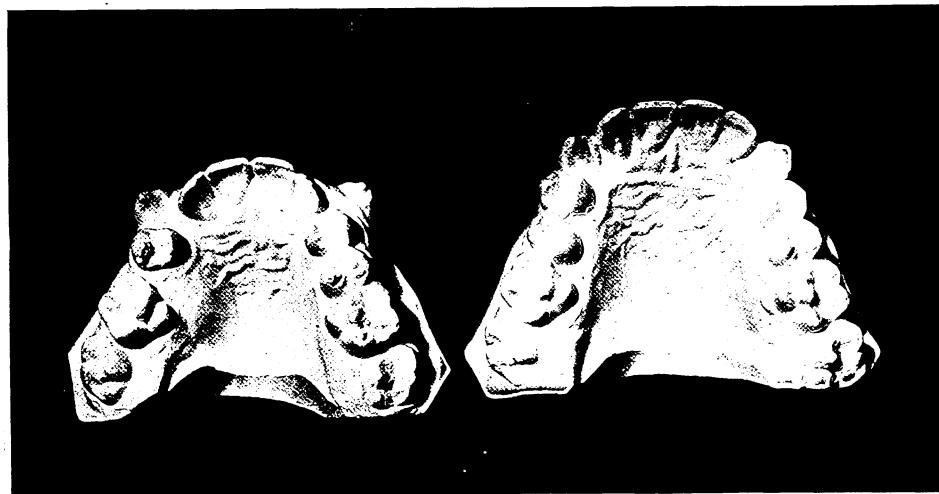


FIG. 12.

made extraction seem necessary, and that in what is known as Class 2, and so your essayist confesses to something of a shock when, in one of the latest of this gentleman's articles, the case shown in Fig. 10 was presented, and it was realized that the progress which it was hoped continued agitation had brought about, had taken a step backward.

Here is a case in Class 1 (Angle) pure and simple, the molars being

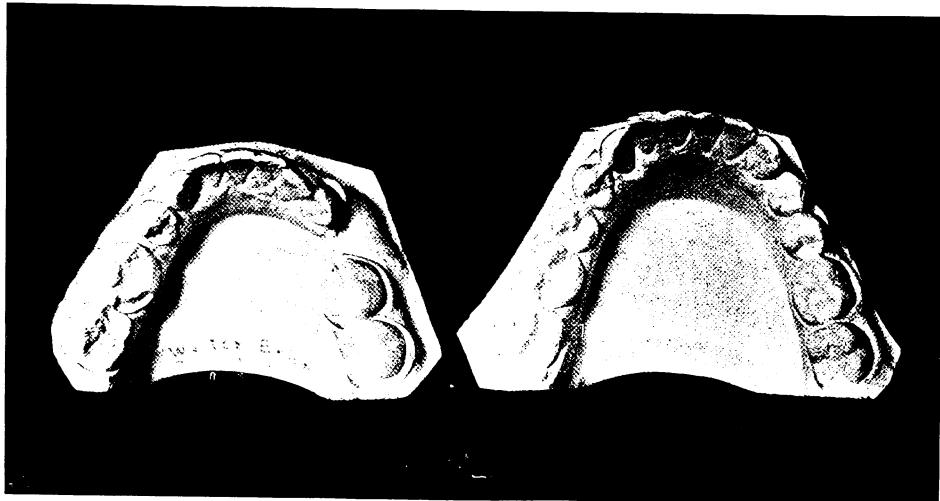


FIG. 13.



FIG. 14.

in normal mesio-distal occlusion, and like the majority of this class demanding simply expansion and rotation of the mal-posed members.

The operator tells us that the arches are "not materially contracted laterally," but if I may be pardoned for advancing a personal opinion, I should say that the arches *are* materially contracted, and will ask a close scrutiny of the occlusal aspect of the models. They are so much contracted, that the front of both arches are narrowed and the teeth forced to

take their places as best they can in such positions of displacement and torsion as is evident from the models. That the facial outline is protruding is not to be wondered at considering the torsion and labial displacement of the central incisors, and because of this it was thought to be necessary to extract the four first bicuspids. It was not because he thought that the alignment could not be accomplished in any other way, for only a few lines back we were told that "in all the ordinary crowded malpositions (and the "new school" fails to see where this case is anything different from an "ordinary crowded malposition") it is always



FIG. 15.

possible to place all of the teeth in proper arch alignment and pose, consequently extraction should never enter into the question." What was the reason then? It was because the operator feared, nay, he was satisfied, that alignment without extraction would result in an enhancement of the already protruding facial outlines.

Upon such an operation as this, the "new school" opposes radically the plan just set forth, and under no circumstances would one of its members practice such a mutilation. Were the fear of producing an intensified facial protrusion through treatment without extraction anything more than imaginary, then caution were wise, but there is in the hands of the "new school" members an immense amount of evidence, in the form of finished results, that proves that conservative treatment even in cases more severe and pronounced than this, does not produce an inharmonious facial protrusion.

## ITEMS OF INTEREST

One of the most remarkable cases of enlargement of the alveolar process for the accommodation of all the teeth of both arches, which has ever been published, is from the practice of Dr. Pullen. I reproduce it here together with the profile of the patient after the expiration of treatment (Figs. 11 to 15), and it is distinctly evident at least to my mind that the facial outline is not protruded beyond a degree compatible with the physiognomy of this particular individual.

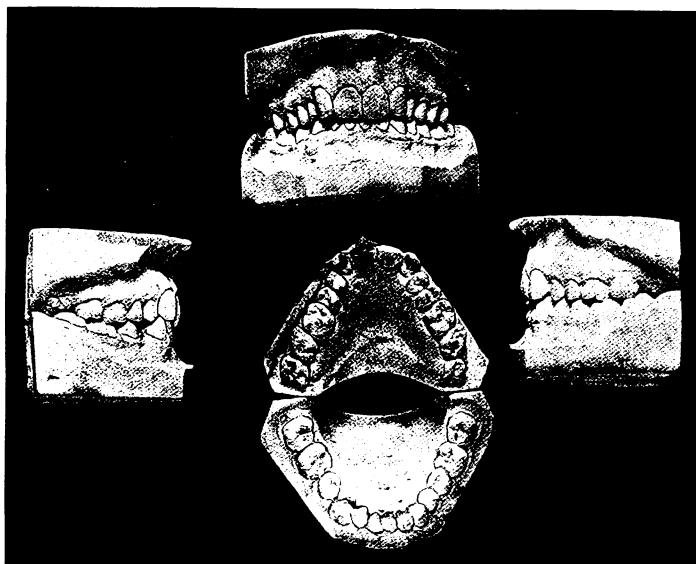


FIG. 16.

Figs. 16, 17 and 18 are from the practice of Dr. Weeks and illustrate exactly the same point. A daring amount of expansion has placed the teeth in alignment and normal occlusion, and yet the face has not been protruded as a result.

Because of having the illustrations of these two cases at hand, I have taken the liberty of reproducing them, showing as they do exactly the point we are arguing. They are taken as typical of results of treatment of this particular class of cases, and I am sure they could be duplicated many times over in the work of many of the members of this society.

Looking again at Fig. 10 let us suppose that in the early or formative period of this deformity the patient had come under the care of an

orthodontist, and as fast as these tendencies to mal-eruption had become apparent, the arches had been enlarged.

No intelligent practitioner, and surely no one who essayed the practice of orthodontia, would even have thought of any extraction, but would have proceeded along the line of enlargement and the result would have been that the teeth would all be in the mouth and in their normal positions. Probably at the commencement there was little or no "dento-facial inharmony," but had there been any, it would have disappeared upon

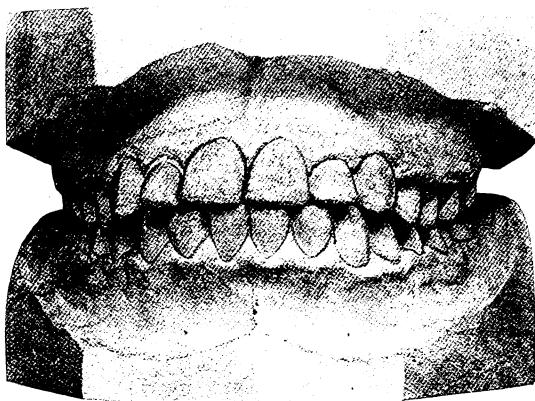


FIG. 17.

proper correction, and at the present time under the influence of growth, and with all the teeth in place, we would have found the face to be just as Nature had intended it to be, barring, of course, other influences. And the gentleman who contributes this case believes that, because he has said as much. Hear again his words on this point: "In a large proportion of irregularities for youths, there will be found no marked dento-facial inharmony; and even these facial imperfections that are caused by a mal-relation of the teeth in occlusion, will frequently disappear upon proper corrective treatment after being followed by the harmonizing influences of growth." From which I again state, that had the teeth early been placed in normal occlusion, we have every reason to believe that the face would have completed its full growth, and the area about the mouth would have been found to be in harmony or esthetic dento-facial relation.

Very well then, if the restoration of normal occlusion at this early age would have been productive of such beneficial results, and would therefore have been considered as the ideal treatment, why not at the age at which this case presented? At the present age the processes of growth

and repair have by no means finished their work, and the period has not yet passed when growth of alveolar process and superimposed tissue would take on its activity again and complete the development to a point where the best harmony between teeth and face would be established.

This face just as we first find it, is as it is, because the teeth are as they are. It would be absurd to premise that the face was inharmonized by Nature as an indication to the odontocide that he must disarrange her plan and mutilate her work; that the teeth were purposely disarranged to intensify the already inharmonious setting and make it



FIG. 18.

well nigh impossible for one to pass by and not see that the face was all wrong. Nature can not go back on her own work or her own plan. The fact that a certain number of normal teeth (not supernumeraries) were placed in the mouth, means just one thing,—that there is only one position in that mouth where they belong or ought to be, and that one position is in normal anatomical relation with their fellows, and when they are so placed, the facial outlines about the mouth, must be correct for that particular individual.

Nature prefers that they should be in this position, because she invariably puts them there when her plans are not interfered with, and has followed this plan of placement since man has had teeth. Does it not

therefore seem presumptuous to try to alter so long and well-established a precedent? The "new school" to a man believes extraction in such cases to be unwarranted because unnecessary, and deplores this instance



FIG. 19.

FIG. 20.

FIG. 21.

of it, especially from one who is skillful enough to have accomplished the treatment without it.

Judging from the particular kind of an illustration this author uses to portray the profile of the face, the artistic merit of the result might



FIG. 22.

be debated. Our contention is that from a critical standpoint of facial art, the result would have been better by leaving the teeth all in place.

The two cases last illustrated (Figs. 11 to 18) are meant to refute the fallacy so often indulged in by this author, that the restoration of normal occlusion is at the expense of producing a facial deformity. That

fear has long held a place in the mind of the amateur in orthodontia, but those who have given the matter the greatest number of trials have found that it does not work out that way, and if there are any such cases they would be very interesting, especially to the members of the "new school." They have not been presented in evidence as yet.

**Inheritance.** When a discussion on orthodontia is directed toward that class of cases in which the first molars are found to be in normal mesio-distal relation with

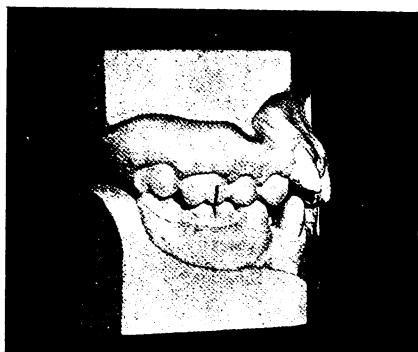


FIG. 23.



FIG. 24.

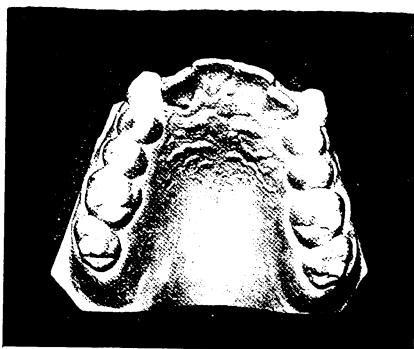


FIG. 25.

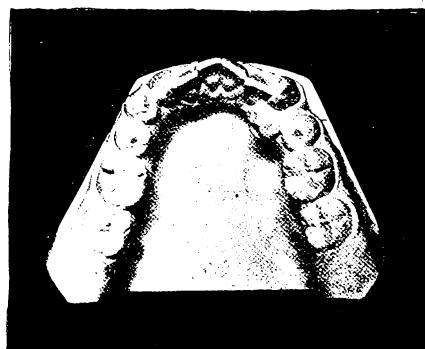


FIG. 26.

each other, illustrated by Figs. 19 to 26, which is a fairly typical case, the idea that any of these teeth occupy the positions in which we find them because of inheritance, is one rarely if ever considered at the present day because it is plain that the results, as we see them, are due to local causes.

The teeth in this instance were intended to occupy as perfect positions as those in Fig. 27, but they did not. Just why, we do not know,

but some thing, or several things, have gone wrong somewhere in the plan. It has been stated many times that the reason was because the first permanent molars had moved forward, owing to the premature loss of the temporary molars. To infer that this is responsible, is not justified.

The trouble is not that the molar region is too far forward in relation to the contiguous anatomy, but that the cupid region is contracted and the incisal region suppressed. A further glance at the face in Figs. 20 and 21 will show that a full restoration of the fronts of the arches is needed to complete the contour of the face. From a study of this class of cases, it seems logical to assume, that when the first molars are found to be in normal mesio-distal occlusion, they are in their correct positions

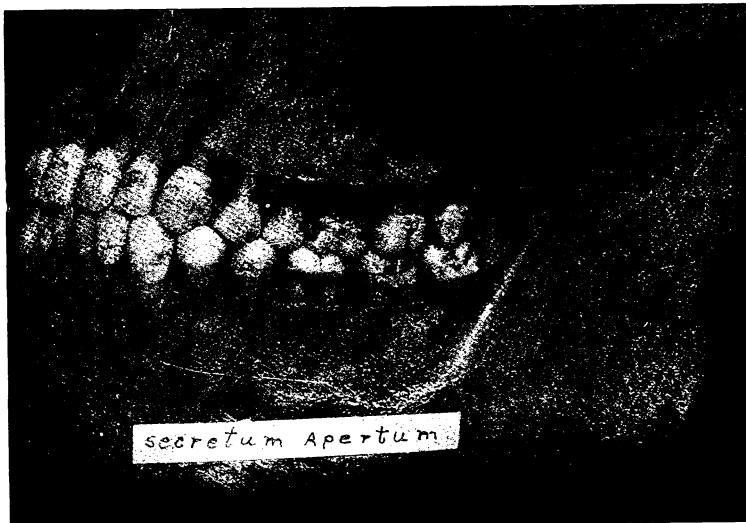


FIG. 27.

in the anatomy, and inasmuch as Angle writes that in almost seven hundred cases in a thousand, the first molars are normal, it would follow that if these teeth are not in normal occlusion, the proper treatment is to place them so. When we come to those conditions sometimes spoken of as upper or lower protrusions, such as are illustrated by Figs. 5 and 7, the idea that inheritance is to blame is something that the "new school" emphatically disbelieves, and as in Class I before referred to, considers local causes blameworthy.

That inheritance should decree that the first molars should erupt in abnormal positions is not in accord with common sense, nor with what actually occurs in the mouth, nor with the principles of evolution. If one



## ITEMS OF INTEREST

could only watch the process of displacement from its beginning he would see that there certainly was a time even to a particular day or hour, when the distal position, for instance of a lower molar, or both of them started. There was a time when these teeth rode on the summits of the occluding cusps, and some particular influence, not heredity, determined whether they should slide one way or the other, and that way they moved. Supposing at this particular time or we will say soon after, the orthodontist had seen what was going on, and knowing what this change meant, had applied force to place these straying members back where they belonged, and had been vigilant in his watch to see that they stayed there, what



FIG. 28.

would then become of the theory that heredity had issued a decree?

The same thing exactly holds good of Class III or lower protrusions. A gross injustice has been done the "new school" by assuming that our unvarying practice in correcting mesio-distal malocclusions is the "unrestricted use of the intermaxillary force," to protrude the teeth of one arch half their diameter, and retrude their antagonists an equal distance. Such is not the case. There are, to be sure, times when just this is required, and there are also times when something quite different is demanded. I beg to assure this gentleman that the "new school" is not so hopelessly committed to a mechanical hard and fast rule of treatment, that all esthetic requirements are overlooked. While it is considered that in restoring a normal occlusion, we have done the very best for the

patient esthetically as well as otherwise, it is found that sometimes the whole movement, or the greater part of it, is performed on one jaw alone, according to the best art requirements, and the "new school" would be disappointed, to say the least, in any of its members who would overlook so important a point.

One of the most astounding statements concerning the relation which a normal occlusion and dento-facial inharmonies bear to each other, is found in a paragraph from the same author whose views I have been discussing. He states that "dento-facial inharmonies, not uncommonly to the extent of decided facial deformities, quite as frequently and extensively exist between the positions, sizes and relations of the teeth in normal occlusion, and the physiognomy of the individuals in which they

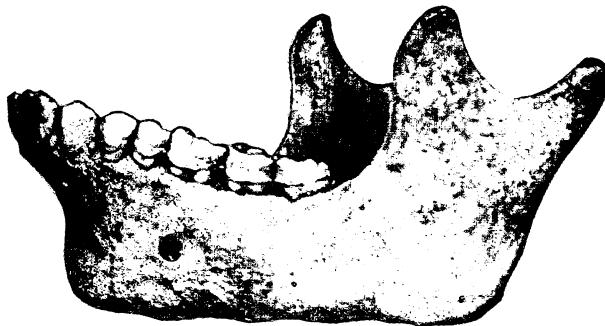


FIG. 29.

are placed, as between any of the other organs,—the eyes, the ears, the noses and the physiognomies of which through the laws of heredity they form a part." Which means, stated in fewer words, that dento-facial inharmonies severe enough to be considered as decided facial deformities, may exist in a face overlying a normal occlusion. If a case like that could only be published so that we could see it, we could better debate the question.

I can not resist the duty which at this time seems to fall to me in a discussion of this nature, and attempt to set right many who might be misled by a statement which has appeared a number of times in print among the writings of one prominent as a teacher and through his research work, which seems to be at least a misinterpretation of one of the facts dealing with occlusion as a guide in orthodontia. The gentleman says that he can not agree with the assertion that "if the first molars or premolars be properly locked, the other teeth will be in good occlusion." Let me say for his comfort that he nor any one else, is not ex-

pected to agree with any such statement, principally because it is not true, and secondarily because no such statement ever emanated from the "new school."

Figs. 22 to 26 will serve again to illustrate that it does not follow, because the first molars are normal, that the other teeth will be also. We see a most decided malocclusion anterior to the cuspids. When, however, the molars are normal, the rest of the teeth have a *chance* to assume the normal which unfortunately does not always occur.

**Bimaxillary  
Protrusions and  
Retrusions.**

When a student it was my privilege to sit under the instruction of this teacher and I remember distinctly his lecture describing the case next shown (Fig. 28) and the lecturer stated that the gums and alveolar process were in a most marked condition of hypertrophy. Does it seem strange then that the lips are protruded ex-

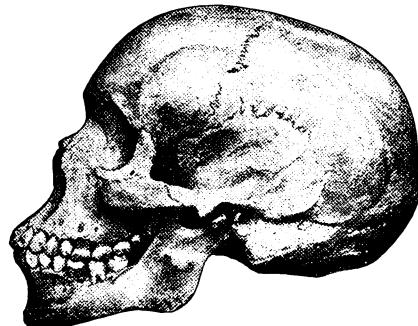


FIG. 30.

cessively? Here is a condition in pathology, and, of course, corrective measures would of needs be something out of the ordinary or out of the realm of pure orthodontia. It is of course to be regretted that the condition of this case forbade the possibility of securing impressions before the operation so that the positions of the teeth could have been determined and possibly some idea gained as to just how much the occlusion was responsible for this protrusion. In the absence however of such models the evidence to prove that we would be justified in considering that this boy's lower jaw looked like Fig. 29 or that his occlusion was like that in Fig. 30 is lacking.

To take up the question referring to so-called "full (bimaxillary) protrusions and retrusions," and considering that Fig. 31 is meant to illustrate the same, I take the author's meaning to be that the teeth in each of these photographs are in normal occlusion. Let me quote: "Full

(bimaxillary) protrusions and retrusions are probably given no place among irregularities of the teeth by the new school, because the teeth being already in normal occlusion, they claim this position is 'incompatible with any degree of irregularity' and consequently the facial outlines which appear to us to be decidedly deformed must be correct, as 'normal occlusion and normal facial lines are inseparable.'

"Normal facial lines" is a term that is exceedingly difficult to define or describe. I doubt much if there is any universal standard applicable to all alike; but *harmonious* facial lines, that is to say, harmonious to the



FIG. 31.

frame of the particular individual, is quite another matter. The time has been when orthodontists thought there was one standard pattern to work towards, and that there were lines and measurements to trim to, but this plan failed, or at least was impractical. We no longer try to fashion every face to that of Apollo Belvidere, the Greek type. To discuss this phase would lead us just now to too great a length. But if I have understood this author correctly, and if the teeth in these three faces are in normal occlusion, then if "old school" methods would extract teeth from such arches to alter any "irregularity," so-called, it seems to me that the less that is said about malpractice in referring to any methods which the "new school" may have the better.

In the publication of Fig. 32, which is taken from the July, 1905, ITEMS OF INTEREST, the author of the article has been one of the first to publish a condition which has been rarely observed. I refer to the temporary denture in distal occlusion, before the eruption of the first per-

manent molars. That any considerable proportion of the multitude of cases in distal occlusion can be traced to an inherited malocclusion of similar nature having "stamped itself upon the deciduous teeth" is rendered out of the question by the disproportion between such cases. If

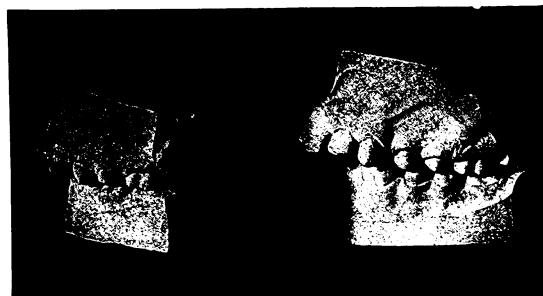


FIG. 32.

this condition were really inherited, and hence had to be so, I would suggest that abortive attempts to place the first molars in normal occlusion be dispensed with and that the case be allowed to progress to its full develop-



FIG. 33.

ment, so that a bicuspid from each side could be extracted to reduce the protrusion. Otherwise the child might grow up to have a partial protrusion above and a partial retrusion below or something equally absurd.

ORTHODONTIA



FIG. 34.

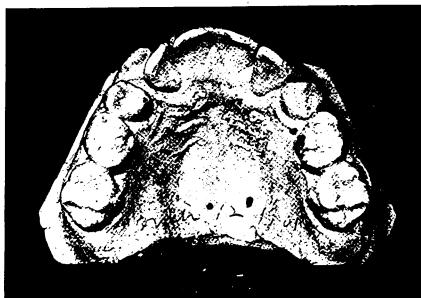
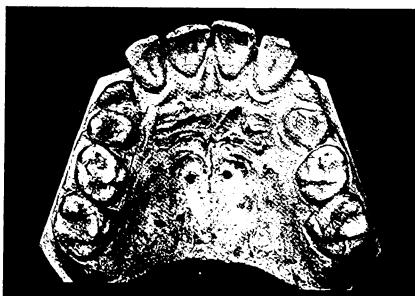


FIG. 35.



FIG. 36.



## ITEMS OF INTEREST

This I take to be a sample of "old school" reasoning. One of these same gentlemen whom we have been discussing objects that he "has seen patients directly from orthodontists having just such an arrangement of

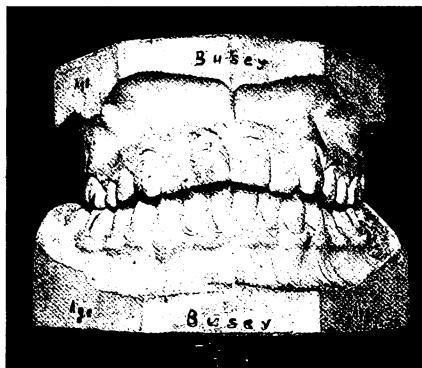


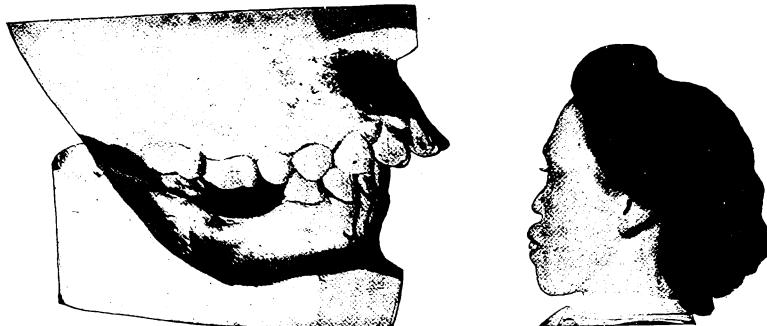
FIG. 39.



FIG. 40.

the teeth as in Fig. 33 otherwise known as 'Old Glory.' " The Lord be praised! Would that he could see more of them! And they were "prognathous-looking." Horror of horrors! No doubt they were at the time at which he saw them. I do not know what this gentleman would

have thought if he had seen the next case to be shown (Figs. 34 to 40) at the time she came from the orthodontist. He would have noticed some prognathism here also, and judging from Fig. 36 a little of that was what she needed. Any appearance of prognathism is certainly not apparent in Fig. 40 after a treatment by excessive expansion (from the practice of Dr. Angle) and after an equal lapse of time I venture to suggest that if the gentleman who objected will again look at the case he saw, he will find little prognathism there, provided such essentials as normal occlusion have been well looked to. Few are the cases that have reached final results as they come from the orthodontist.



From plaster cast, showing malocclusion of the teeth.      Profile view of face of person from whom the cast Fig. 3 was taken.

FIG. 41.

Because of the ardor with which the "new school" men combat the idea of extraction and because, also, of other ideas which they hold, such, for instance, as advocating the distal movement of molars when necessary to restore normal occlusion, they have been termed "extremists" which might indicate that the conservative men are all to be found among our antagonists. What do you suppose then one of the "conservatives" high in the profession did to this poor unfortunate girl shown in Fig. 41? So "radical" is this "new school" that he dare not let an attempt be made to restore this mouth to as near normal as possible, sacrificing the full ideal if necessary as it sometimes has to be in such cases. No! "Conservative" treatment was called for here, and so the upper anterior teeth were removed, the alveolar process cut away with the surgical engine, and an artificial substitute for the missing teeth and process put in place. My contention is that the "new school" should at least have had a trial with this case, and if failure had been the result, then there would still have been ample time for mutilation such as the above.

## ITEMS OF INTEREST

What is interpreted as an attempt to bolster up a forlorn hope considering the strength of the present day movement, is the dangerous play on the word "judicious" as applied to extraction. Dangerous, because it tends to perpetuate the idea of many who have not kept in intimate touch



FIG. 42.



FIG. 43.

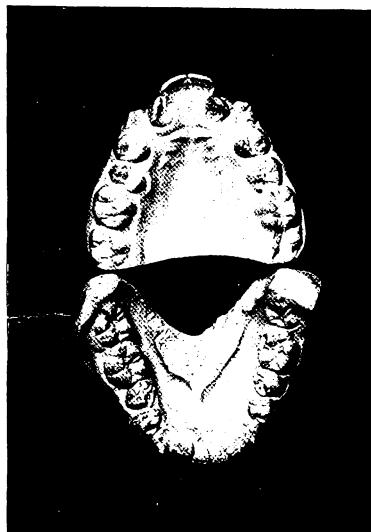


FIG. 44.



FIG. 45.

with the progress of orthodontia, that cases are common calling for judicious extraction.

In studying another one of the "old school" writers recently, one who uses this term "judicious" frequently, I find some peculiar arguments.

Among these is one which makes the mode of treatment to be followed, subject to a parent's judgment. Imagine a surgeon asking a parent how the child's fractured arm should be set, or as to just how the parent wished the appendix removed? Parents frequently come asking that some tooth be extracted to allow crowded teeth more room, because they do not know it can be done any other way, but my experience has been that when they hear that such practice is now behind the times, and that there is no longer necessity for it, the information usually comes as a happy surprise. And again to be told that the child of wealthy parents should be



FIG. 46.

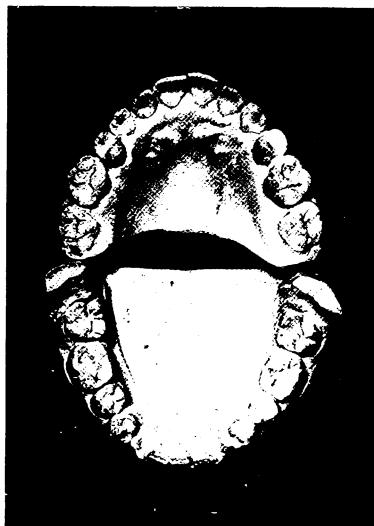


FIG. 47.

put through a more severe operation than the child less fortunate financially, and should have the torture dished out in more generous doses because better able to pay for it, carries a point that is not at all clear. The author whose views are thus outlined expresses himself in these words:

"In many instances, where the parents are cultured and have the esthetic feeling strongly developed, they will desire to have all deformities of their children's mouths corrected in the most perfect manner possible. They are willing that any amount of time shall be taken, discomfort endured, and expense incurred, only asking in return that the results shall be as artistic, esthetic and beneficial as our skill can make them.

**The Wishes  
of Parents.**

"On the other hand, there are those who desire only to have any glaring deformity corrected, allowing minor defects to remain as they are. Their wishes in regard to this matter may be prompted by the physical condition of the child; by a desire to limit the expense of the operation, or by a feeling that a fair amount of improvement in the condition will answer all necessary purposes.

"What shall we do in these two widely varying classes of cases?

"Shall we insist upon treating each in the same manner?

"In regard to the first class there will be no difficulty. The parent desires a result approaching the ideal, regardless of other considerations, and we are only too glad to put forth our best efforts and bring to the work the best skill of which we are capable.



FIG. 48.

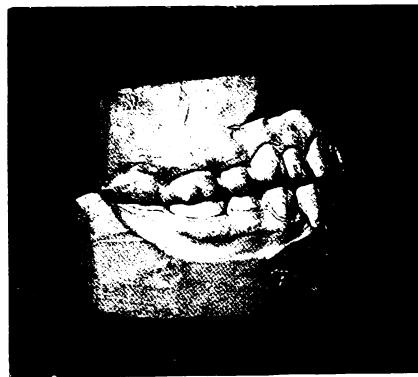


FIG. 49.

"In the vast majority of such cases, extraction will not be necessary, for with time at our command and the appreciative assistance of the parent, we will usually be able to bring about results nearly ideal.

"But how about the other class?

"Shall we insist, in spite of the wishes of the parent in regard to the limitation of the work, that we must pursue the same elaborate course of treatment as in the first instance? Certainly not."

Supposing that the operator knows no better than to allow himself to be drawn into error by an argument of this sort, and yielding to it, resorts to extraction, with the idea that the operation is to be simplified, either as to physical endurance or labor spent.

Figs. 42 to 49 are used to illustrate this writer's paper, introduced as cases to bear out the above arguments. Considering first Figs. 42 and 43 the text says as follows: "There is labial misplacement of the upper

right cupid with insufficient room in the arch for its accommodation. By rotating the right bicuspids and moving them slightly backward, space was obtained and the cupid brought into line. As there was no upper protrusion and the overbite was natural it was decided to extract the upper left first bicuspid. This was done and the malposed lateral and cupid brought into position. The lower arch was normal in size and outline and therefore did not call for any change. To have corrected the irregularity above, preserving all of the teeth, it would have been necessary to enlarge the upper arch, thus producing great inharmony between the two arches, accompanied by anterior protrusion of the upper one. Would not this have been producing a greater deformity in the correction of a lesser one?"

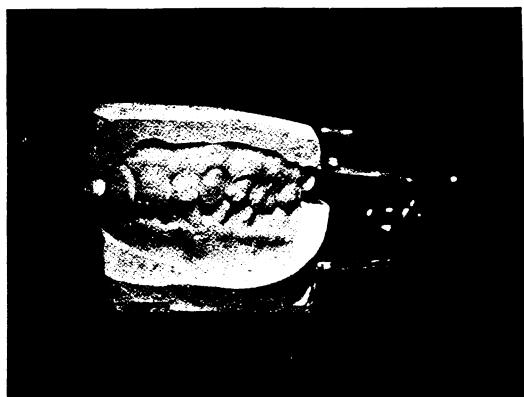


FIG. 50.

In regard to Figs. 44 and 45 the text says this: "In the upper arch of the boy (Fig. 44) the two first bicuspids were extracted and the teeth aligned in the usual way. The girl's upper arch (Fig. 45) was expanded by means of the expansion arch and wire ligatures until a harmonious line was obtained. The girl's lower arch needed only a little expansion to rearrange the anterior teeth, but even with this it was found that the upper arch was unnaturally large and prominent. Both parents and operator were dissatisfied with this result and as a consequence, the upper first bicuspids were removed and the arch again reduced in size to harmonize with the lower."

Figs. 46 and 47 are views of the occlusal aspect of the models showing the conditions as they now are and Figs. 48 and 49 show the occlusion as it now is.



The "new school" immediately recognizes Figs. 42 and 43 as a case in Class 2, second division (Angle) which means that it is typical of a certain definite condition of things, due to certain definite causes, demanding a certain definite treatment, and therefore entitled to a certain definite name. The author who presented it had no name for it, which I might remark in passing illustrates one of the differences between the "old" and the "new schools." Knowing how this same operator has on previous occasions expressed himself relative to undertaking the distal movement of molars, it is presumed at this time that one of his reasons for treating the case as he did was because he did not wish to undertake to move the upper molars distally, which was what the case properly demanded. This must be interpreted as meaning that he did not recognize that the malocclusion of the molars was responsible and the cause for the conditions in the front of the mouth as he found them. In other words the case was treated without a diagnosis. That my premise is correct is borne out by another statement which he makes in the same paper, in describing another case (Fig. 50) in these words: "The superior laterals, probably due to late eruption, were forced by the incoming cuspids to overlay the centrals and become turned upon their axes. The cuspids therefore were anterior to their proper position and in consequence the bicuspids and molars occupied advanced positions. As the lower teeth were normal in outline and arrangement it was deemed inexpedient to enlarge the upper arch, so the first bicuspids above were removed and the laterals and cuspids moved into place."

There is a sample of "old school" diagnosis! Not one word about occlusal relations, nor facial lines, and the whole proposition just rear end foremost. Contrast that if you please with how the "new school" would diagnose the same case: The lower molars having assumed a position distally in relation to the uppers the entire lower arch was carried into retrusion. Owing to normal lip function the front of the upper arch was forced back in an attempt to occlude with the lower and naturally the upper incisors were forced into malalignment and torsion.

To straighten out the tangle would require that the molars be restored to their normal relations and the arches harmonized with each other by placing the occlusal planes normally.

This author's justification for his method was that it made just the difference between a simple operation and an elaborate one; that the physical endurance on the part of the child might be equal to his method and not to the other; that it was one of those cases in which the parent wished only to have any "glaring deformity" corrected, and to allow the "minor defects" to remain as they are; and that extraction would so simplify the operation that a small fee could be demanded as against the

more elaborate operation and thus, it might be, place the case within easier financial possibility for the parent.

I venture the assertion that there is not a man within the sound of my voice, who if left entirely to his own option would not prefer, yes, insist, that he be allowed to do this same case according to the dictates of normal occlusion, and would guarantee that it would be done with a less amount of labor to himself, and with no more physical inconvenience to the patient. As to the fee, this question would never enter into the mind of the "new school" man. He would do it in exactly the same way whether he received fifty or one thousand dollars. If there is a right way to do an operation for the wealthy child, there is no other way to do it for any one else.

While we can not tell from the illustrations which division they belong in, it is evident that Figs. 48 and 49 were cases in Class 2, the lower being distal. In order to contrast the two methods side by side, the operator decided to extract in Fig. 44 and expand in Fig. 45. We have heard how he pronounced the plan of expansion a failure. Now why was it a failure? In the first place it is plain again that there was no attempt at diagnosis. If there had been it would have been evident that to leave the upper arch the width of a cusp in advance of the lower, and then expand the teeth into alignment could have had no other result than to create an unnatural protrusion, because it would simply convert the case into one in Division I. This patient we are told is still wearing retainers. A glance at the way the occlusion has been left, without an attempt even at interdigitation, will satisfy one that it is well she is, and unless conditions right themselves to a considerable degree, a retaining device might well be considered as a permanent necessity.

The same aversion to undertaking a distal movement of the molars that this gentleman has previously displayed is again apparent, and for what reason it is not easy to understand, unless it be because he is among those who object to the "unrestricted" use of the intermaxillary force. Whatever controversy may exist regarding the introduction of this method of applying force, it is a certain fact that no other appliance in use to-day, will accomplish changes mesio-distally so easily, quickly and satisfactorily as the intermaxillary elastics.

The question of extraction it is hoped will some day and that soon, be laid to rest, and when that great day comes, the "new school" will feel that one of the principal objects of existence will have been achieved. Only those who know can have any idea of the disappointment this body feels, in realizing that instead of encouraging it in this work, criticisms and objections are thrown into its pathway by those who should be in the utmost accord in this great work of redeeming orthodontia. Ap-



parently now the only point that separates the "old" from the "new" in doctrine, is this matter dealing with the necessity for extraction in some cases, and this one difference rests upon a principle which seems to be a fundamental one to each side. Briefly stated, it is whether we shall accept normal occlusion as the guide to facial harmony, or "dento-facial harmony" alone, allowing any changes to be made in the number or positions of the teeth, which in the operator's judgment would improve the facial lines. And in the term "operator's judgment" I have spoken the essence of the whole situation. "Dento-facial harmony" is only another name for individual interpretation, and this as a guide is too vague and unreliable to be of any practical value. To substitute it for so definite, comprehensible and attainable a principle as the normal occlusion of the teeth as a guide and standard, would be a deplorable retrogression, and would lead us straight back into the very condition from which we have emerged. This standard "individual interpretation" is none other than the one that men built upon years before, when they knew not what relations normal occlusion bore to the facial lines, and there are few in the realm of orthodontia to-day, who do not feel the blush of shame in their cheeks at the results obtained under such a system. Under such a plan there is absolutely no restraint. An operator can interpret a given case as he sees fit and his results, be they what they may, would be justified, because he followed his conception of what "dento-facial harmony" should comprise.

However accurately one man may be able to apply this guide in his own practice and satisfy himself as to what "dento-facial harmony" really is in each given case, I am positive that but a trifling proportion of those who would undertake orthodontia, are in possession of so rare and exquisitely delicate an appreciation of artistic principles, as to enable them to successfully apply such a principle. On the other hand, taking the normal occlusion of the teeth as a guide, and believing as we do that when the teeth are so placed we have done the very best possible that can be done for that face in so far as the teeth are factors, we are furnished at the outset with a guide that admits of no individual interpretation, with its possibility of error, and is furthermore within easy comprehension.

Any reform has, preceding it, conditions that were abhorrent, to the victims of those times, and the two greatest blessings that this reform in orthodontia has brought have been "system" and "simplicity."

I can do no better in my last words than to repeat those used so often by the founder of this society: "In art, in all things, the supreme excellence is simplicity."

# SOCIETY PAPERS



## Interstitial Gingivitis.

BY EUGENE S. TALBOT, M.S., D.D.S., M.D., LL.D., Chicago, Ill.

*Read before the New Jersey State Dental Society, Asbury Park, N. J., July, 1906.*

Thirty-five years ago, while a dental student, it appeared to me that pathology was taught in a crude manner. There was no connection between the different diseases of the face, mouth, jaws and teeth, nor between these structures and other parts of the human body. There were many pathologic conditions of the mouth and teeth that could not be accounted for. Pathology must be studied and taught upon broader lines. It seemed to me that pathology would be a good subject for my life work.

In my early reading, evolution became an interesting study. I reasoned that if man is the product of evolution, change in structure must also be accounted for in the same manner. The law of Aristotle, the law of economy of growth whereby an organ or structure is lost for the benefit of the organism as a whole, or use and disuse of structures, was a broad foundation upon which to study developmental pathology. Man to develop or evolve must grow in some directions and degenerate in others. Reasoning in this way, it was not difficult to find that the central nervous system is pre-eminently the part of the body that is growing at the expense of physical man. All physical structures however, are not degenerating to the same degree. Environment has much to do with this law. There are some structures that, so far as usefulness is concerned, have already passed and only a trace is left. Thus the pineal eye, the vermiciform appendix, the little toe, the false ribs, the little muscles of the ear, etc. Other structures are passing or degenerating such as the face, nose, jaws and teeth.



## ITEMS OF INTEREST

On account of disuse, these structures are degenerating for the benefit of the brain. The brain presides over nutrition, and structures which do the most work get the most nourishment. Hence the lower jaw is better nourished than the upper. Structures that are degenerating or passing are transitory structures, and are more liable to disease than healthy growing or developing structures. When therefore from disease or other causes, nourishment is interfered with, the face, jaws and teeth suffer. The change in the shape of the jaws, alveolar process and teeth shows a marked degeneration. The dental arches are much smaller, the vaults are narrow and appear high. The alveolar processes are thin and long, the crowns of the teeth smaller, the roots longer, narrower and closer together. The roots of the molars do not spread as much as those of former races. The alveolar process is doubly transitory. The eruption of two sets of teeth causes the alveolar process to develop and absorb twice, if the second set of teeth is lost. This makes the alveolar process doubly sensitive to the influence of disease.

**Alveolar Process**      The alveolar process is an end organ. An end organ is a structure through which the blood passes and is restricted in its return. There are a number

**an End Organ.**      of end organs in the human body; the brain, eye and kidneys. Physicians think the eye the most prominent. Hence disease or change in nutrition is more easily and quickly observed in the eye than other structures. The alveolar process is the most sensitive. The tooth, so far as the process and its diseases is concerned, is a foreign body; the blood vessels extend to the root and stop. The blood vessels extending through bone tissue are conducted in a tortuous manner, thus interfering with its return. The arterial walls become diseased and stasis results.

The fact is that the alveolar process, owing to its evolution and because it comes and goes twice in the life of man, is a doubly transitory structure. It is an end organ. It is atavistic in its nature and because the peripheral arteries end in bone tissue and easily become diseased, it is the most sensitive structure in the human body. It is therefore a greater index to systemic disturbances than the human eye.

**Interstitial**      What is interstitial gingivitis? What is pyorrhoea alveolaris? A first tooth erupts; that it may  
**Gingivitis**      absorb the alveolar process to allow it to come  
**Defined.**      through the tissues, it sets up an interstitial gingivitis.

There is no pyorrhoea.

A second tooth erupts, interstitial gingivitis is set up to absorb the alveolar process. There is no pyorrhoea alveolaris. Teeth are wedged to obtain room for filling, teeth are regulated, an interstitial gingivitis is set up. There is no pyorrhoea alveolaris. Crowns and bridgework are in-

serted, the gold band is carried under the gum margin, interstitial gingivitis is set up. There is no pyorrhoea alveolaris. One, two, three or four roots carry a piece of bridgework containing two to twelve crowns, the extra strain upon those roots sets up interstitial gingivitis. There is no pyorrhoea alveolaris. Artificial dentures set up interstitial gingivitis. There is no pyorrhoea alveolaris. Tartar, foreign deposits and local irritations about the teeth set up interstitial gingivitis. There is no pyorrhoea alveolaris. A root is filled. Some of the filling material extends beyond the end of the root, interstitial gingivitis is set up. There is no pyorrhoea alveolaris. These inflammations may continue for a lifetime or until the tooth has exfoliated, if there be no pus germs in the mouth, pyorrhoea alveolaris can not take place. Every one has interstitial gingivitis. Only about ten per cent have pyorrhoea alveolaris. Interstitial gingivitis is a disease. Pyorrhoea alveolaris is not a disease but the result of a disease. The two pathologic conditions are separate and distinct. In the study of the two conditions, the terms interstitial gingivitis and pyorrhoea alveolaris should be used in their proper places.

In some of the lower vertebrates, some snakes, elephants, etc., there is a continuous shedding of teeth. Certain teeth develop, are used a short time, are lost and new ones take their place. This continues throughout the life of the animal. Man has two sets of teeth. The first set is lost and a second set takes its place. These in turn will be lost if he live long enough. As soon as the alveolar process has obtained its growth (in degenerates it commences much earlier), interstitial gingivitis sets up and there is a gradual absorption of the bone from the start. Nature is trying to shed the second set of teeth. This process I have called osteomalacia or senile absorption and is atavistic.

While the periodontal membrane becomes inflamed in interstitial gingivitis, the alveolar process is the supreme structure first to be considered in this disease. Hence the reason little or no pain is experienced.

Three forms of bone absorption enter into the destruction of the process, halisteresis, Volkmann's perforating canal absorption and osteoclasia. This disease is found in all animals, especially wild animals in captivity. Both the house and tramp dog are excellent animals in which to study this disease.

A series of slides prepared from the mouths of dogs, here shown, demonstrate osteomalacia or senile absorption.

**Causes which  
Aggravate Interstitial  
Gingivitis.**

Having studied the terms and nature of the alveolar process, the subject of interstitial gingivitis and pyorrhoea alveolaris as it is found in the mouths of patients may be considered.

The etiology of advanced stages of interstitial gin-



## ITEMS OF INTEREST

givitis are divided into local and constitutional. The local causes are anything and everything that will produce a local irritation. Many of these have already been enumerated. The constitutional causes are those conditions of the system which cause and prevent proper elimination, namely diseases, gastro-intestinal fermentation, drug and metal poisons, extreme changes from heat to cold and vice versa, and pregnancy. The lungs, skin, bowels and kidneys are the four great eliminating organs. In disease some one or all of these organs are involved. If any one of these organs become diseased, faulty elimination and auto-intoxication result. Gastro-intestinal fermentation, liver and kidney insufficiency are the great causes of interstitial gingivitis due to faulty elimination and auto-intoxication. Drug and metal poisons act directly upon the alveolar process through the blood stream and nervous system.

Sydney Kuh and others have demonstrated that in most diseases, especially those of gout and rheumatism, the peripheral nerves become diseased. I have demonstrated nerve end degeneration in the pulp. In auto-intoxication, the blood becomes poisoned, thus setting up irritation in the capillaries. Again, the irritation in the blood due to auto-intoxication produces a strain upon the heart. The heart, forcing the blood with greater energy, causes the arterial walls and capillaries to dilate, again setting up irritation and inflammation in bone tissue. Finally the coats of the arteries weaken and arterio-sclerosis results.

(The pathology was here demonstrated by slides thrown upon the screen, prepared from the tissues of dog, monkey and man due to a number of diseases.)

In treating the mouth locally, all irritants should be removed from the neck and roots of the teeth.

**Local Treatment.** Since the inflammation is deep-seated and extends throughout the alveolar process as well as the soft tissues, iodin is indicated. The ordinary officinal preparation may be used. Owing to its thinness and slowness in absorption, it is liable to flow over the mouth upon the saliva. The following prescription called "iodo-glycerole" prevents this and gives the best results :

Zinc iodid .....	15.
Water .....	10.
Iodin .....	25.
Glycerine .....	50.

This will make about two fluid ounces. This should be applied with an orangewood stick wound round with cotton. The lingual surface of gums on lower jaw first, then the palatine surface of upper jaw. After



these surfaces have dried, the patient can close the teeth, then paint first the buccal and labial gums on lower jaw and afterwards those on the upper.

The difficulty in getting this preparation properly prepared is, that very few druggists have zinc iodid in stock. It would be a good plan for dentists to have some one reliable druggist in a town or city make this in quantity and keep it on hand. The dentist can then order it in quantities to suit his own convenience.

Gum massage I consider as important as any one thing in the treatment of this disease, whether it be of local or constitutional origin. The stimulation should be performed three times per day. This can only be accomplished by a properly made gum massage brush. The profession have made a great mistake in recommending tooth brushes, none of which are properly constructed for keeping the teeth clean, say nothing of massaging the gums. When the proper massage brush is used, the gums and the teeth will be made more healthy. (The essayist then delivered a lengthy lantern lecture.)

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## The Use of the Pyrometer in Fusing Porcelain.

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By DR. R. M. PELTON, Detroit, Mich.

*Read before the Michigan State Dental Association, Detroit, July, 1906.*

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The purpose of this paper is to endeavor to make clear the proper use and application of a pyrometer in the fusing of porcelain.

It might be supposed that all that is necessary aside from the ordinary knowledge of porcelain work is to connect the pyrometer to the furnace and proceed to make tests upon the various bodies that are to be used, observing the length of time taken and the degree of heat to which the needle points when the desired result is obtained, making note of it mentally or otherwise for future guidance and ever afterward to proceed in the same manner.

This might be ample directions in the case of a steady voltage but the fact is that current strength varies in some localities and that this variation causes trouble under any system which may be adopted for the fusing of porcelain.

Therefore, a further consideration of the subject is necessary to thoroughly understand it and to enable the operator to account for certain phenomena on a fluctuating current. Phenomena which at first may not



be understood, and will likely be attributed to other causes than the real one.

Before entering upon that subject it will be necessary in order to understand it more clearly to consider some phenomena about porcelain that have not long been observed, at least nothing was said about it in published reports until the matter was taken up by Dr. John Q. Byram of Indianapolis, in a very instructive and interesting paper, read before the Chicago Odontographic society on November 21, 1905. The statements made by the essayist at that time were based upon a very thorough series of experiments and the results he obtained have been verified by others. Some of the deductions from these experiments are as follows:

**Facts about  
the Fusing of  
Porcelain.**

1. That porcelain has no definite fusing point when separated from the consideration of time.
2. The longer the time of exposure to heat of any porcelain the lower the temperature at which it will fuse. To quote Dr. Byram exactly, "by prolonging the time of exposure to heat, a thoroughly fused porcelain may be obtained at a comparatively low temperature."
3. That low-fusing porcelains may be obtained by fusing and grinding high-fusing porcelain.
4. If a piece of porcelain be fused perfectly and then more of the same porcelain be added and the whole mass carried to exactly the same point, the first layer will be over-fused because it has had a longer exposure to the same heat. If a third layer be added, and fused perfectly the second will be over-fused, and the first still more so and the colors lighter. In making this test layers may be added and the heat carried to the exact fusing point of the last layer until by the repetition the first is absolutely ruined, or in other words if porcelain be kept long enough in the maximum heat required to fuse it, it will become just a globule of glass.

This quality in porcelain which admits of its fusion at a comparatively low temperature by long exposure is so pronounced that those which ordinarily fuse at from about 2,100 to 2,550 degrees, F., when brought to that temperature rapidly, may be fused on pure gold by giving them sufficient time. Dr. Byram's experiments showed that this time would vary from fifteen minutes to eight hours on the various bodies, to fuse them on pure gold.

From the foregoing we see that repeated heating of porcelain, to say the point of biscuiting will, in a few heatings produce a perfect fuse, or that if porcelain be exposed to a certain degree of heat for a certain length of time, accurate and desired results will follow which will be

known in advance by the operator who has made the necessary tests. Success depends upon time and temperature intelligently applied.

**Difficulties  
of Fluctuating  
Currents.**

The time is easily disposed of, but what about the temperature? How are we to fuse at a definite degree of heat without some means for indicating it? Some say we can judge by the color of the heat, but that method is unreliable to say nothing of the terrible strain upon the eyes when using high-fusing bodies. Another may say leave the furnace running with the lever on No. 1 until the maximum heat is obtained on that button, and then always start from that and time the work on the other points used until the proper result is reached. This would give us a definite heat on a steady voltage, but what about the dangers of a fluctuating current? In this case if time is depended upon to obtain correct results, the situation becomes at once serious when we consider the danger of ruining perhaps, an important piece of work that has taken hours to bring to the point where it is ready for the furnace. Let us presume a case: Yesterday we obtained correct results by running, say one-half minute on contacts, No. 2, 3, 4 and 5, and two minutes, on 6, and to-day we again ran the furnace in exactly the same manner, but obtained only a biscuit where yesterday a perfect fuse was the result. What is the meaning? As we all know it means that to-day the voltage is weaker than it was yesterday, and we must test up again. Perhaps no harm is done in this case, but to-morrow if we depend on the tests of to-day, it may be the voltage will be as strong or stronger than yesterday and if we run the length of time indicated by our tests of to-day, the work may be ruined and must be done all over again.

Under tests with the pyrometer if the current is uniformly the same day after day, the needle will always point to the same temperature upon running the same length of time. The results to porcelain will be the same with each fuse if approximately an equal quantity of the powdered body be taken and the only responsibility involved is to decide upon the allowance to be made for the difference in quantity of porcelain which would be necessary under any system of fusing, and to move the lever in the usual lengths of time on the intermediate contacts from No. 1 to that which is decided upon for the final result. The pyrometer may be relied upon, and it also serves another purpose of great value. It indicates when the desired point is reached and also enables the operator to readily observe any serious fluctuation of heat from that which would be produced under the steady voltage, for if, from any cause the current should be either weaker or stronger than normal, the needle will soon denote the resulting variation in degree of heat by moving to a greater or lesser distance on the dial than is usual in the same time, and this



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change will instantly be noted, the cause of it understood, and the proper steps may be taken to avoid the damage to the work.

These steps would be three in number and the decision as to the proper one to take and how far it should be carried will be based upon experience. First, if the needle indicated that heat was being generated more slowly than usual, the observing operator would know that he must take a longer time for the fuse and as the porcelain would thereby receive a longer exposure to heat, it would fuse at a lower temperature. Therefore the needle would not be allowed to register so high as when the voltage and resulting heat is normal.

Second. On the other hand if the needle indicated that heat was being generated more rapidly than usual, he would know that if the lever be moved forward as usual the fuse will be reached in a shorter time and as the exposure of the porcelain to heat is for a lesser time, the needle must be allowed to indicate a higher temperature than when the voltage and heat is normal.

Third. If the operator observes that the needle is registering a greater or less degree of heat in a given time than usual, he may still hold his work to the normal conditions by moving the rheostat lever more rapidly or more slowly as required to reach a given temperature in a given time. This precaution is very likely the best of all and incidentally is a good argument in favor of a rheostat.

Some may think all this might not be noted but it would be a mistake to suppose anything of the kind. It becomes second nature to the careful operator to be conscious of the movements of the needle and the degrees to which it should point in a given time. For instance, if we start with the normal heat obtained by leaving the furnace running on No. 1 contact, with the door open, and then close door and place lever on No. 2, remaining there thirty seconds, and the needle points to 1,550 to-day at the end of that thirty seconds, and to-morrow under apparently the same conditions the needle points to 1,660 in the same length of time, the operator would be conscious of it and would know that his current was stronger; and if he adopted the plan of regulating to the changed condition by use of the rheostat, he would advance the lever more slowly and hold the muffle to normal conditions. The pyrometer needle will point to the same degree of heat every time when pure gold fuses, if the gold has the same bulk, and is in exactly the same temperature as the hot end of the thermo-couple every time the fuse is made, and this is regardless of the length of time taken.

### **Reliability of the Pyrometer.**

Assuming that the instrument has been correctly calibrated it will always give the correct temperature of the muffle. When heat is generated rapidly in a muffle, a short run will fuse the porcelain, but it will

be at a comparatively high heat and the needle correctly indicates what degree it is.

On a comparatively low heat and the necessity for a long run the same porcelain will eventually fuse, it may be several hundred degrees lower, but the temperature will be registered by the pyrometer and it will be correct, reckoned from the fusing point of pure gold as the standard.

With this array of proven facts, unless what seems very improbable takes place and the nature of porcelain in reference to its fusing qualities is entirely changed so that it approaches more nearly that of gold, it does not seem possible that any automatic device operated by the fusing of metals will ever be invented that can be relied upon to any extent to cut off the current at the proper time, while the operator busies himself with something else or closes up and leaves his office.

**Effect of Variations in Current.** If a pyrometer be calibrated with the thermo-couple attached to a furnace which is heating on a 110-volt current, and after calibration a porcelain be fused say at 2,400, then attach the same outfit to a

120-volt current, and the extra 10 volts will generate heat more rapidly, the porcelain be fused in a shorter time, and therefore it must be at a higher heat. In this case it would be at least 100 degrees. Again if the same outfit were attached to a 104-volt current the reverse would occur, and from the slowly generated heat and longer time the needle would point to a lower temperature than 2,400. In the three cases the calibration would be the same, on gold with its definite fusing point, and in all three, the heat indicated by the needle would be correct.

In most localities where the voltage is between 104 and 125, it is given at 110, but it varies from that. Here in Detroit in the down town district and on the Edison current, the voltage is from 118 to 120 direct. In the power buildings here and elsewhere, where the current is generated in the building, there is usually considerable fluctuation on account of the varying loads put upon it. In a large portion of Detroit the current is 109, alternating. This is mentioned to show how difficult it is to lay down fixed rules, and to make more clear the necessity for each dentist to make his own tests on his own current and with the porcelain outfit he has elected to use. He can then write down fusing points as he finds them, under conditions with which he soon becomes familiar.

There is something definite and tangible about a pyrometer, a something to rely on and give a name to. The time and degrees can be thought about and talked about and the tests will be at once fixed in the mind in a way that is very gratifying and the operator is relieved from



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ever straining the eyes in attempting to look into the fierce heat of the muffle.

### Advice to Beginners.

To the beginner in porcelain work who wishes to use a pyrometer, we would advise the fusing of porcelain buttons, making careful tests, and at the same time observing temperature indicated by the needle and the time occupied; he should make comparisons of color, bearing in mind that in proportion as the button is smaller the shade will be lighter than that of the shade guide. Do not try to obtain the maximum heat supposed to be required at first; rather get an underfuse and then work up to the correct results. Do not mistake the porous burned out appearance of an over-fuse for an under-fuse, and then put a useless strain on your appliance trying to make it come out right. This very common mistake among beginners is quite surely avoided in the use of the pyrometer, as they are given warning by the point to which the needle advances. With this system as with any other no practical case should be attempted without this preliminary testing and these tests should include various kinds of work before attempting anything for a patient.

If it is desired and should your current prove to be very uniform, good results may be obtained by omitting to observe the time and in its place move the lever forward when the needle reaches a certain point, which is equivalent to timing, as experience has shown that the needle arrives at that point in a given time. The same holds true on the final point selected for the fuse in the case of a steady current, for it will be known that when the needle indicates a certain degree of temperature it has arrived there in the usual time and the porcelain has been exposed to the exact heat for the proper length of time for its fusing.

In using a pyrometer in connection with continuous gum work the fact is at once brought out that the fuse is obtained ordinarily at a much lower temperature than in small work because a long time is usually taken to do it. It is very likely the general belief that on a long run with the C. G. furnace the fuse is finally obtained at the same degree of heat as a short run in the small furnace, but this is a mistake.

In Toronto last year, I placed a button of high-fusing body in the furnace and closed the door with the lever on No. 1 contact. Just then I was called away, and was gone for some time. When I came back, I took out the body and to my surprise it was beautifully fused, and I supposed then that the long run on No. 1 with the door closed had brought the temperature up to the fusing point of that body which is given as 2,550 degrees F. I now know my mistake for by the pyrometer I can show that under the conditions in which the furnace was working at that time, it would be impossible to obtain over 2,100 degrees with the door

closed and the lever on No. 1, no matter how long it should be left. So I knew that that porcelain fused at 2,100 or less.

I have tried to bring out this point strongly because it will, perhaps, be the only one that may puzzle the man who takes up the pyrometer method. The fact exists and it was proven when the pyrometer came into use and gave us a tangible method of indicating degrees of heat.

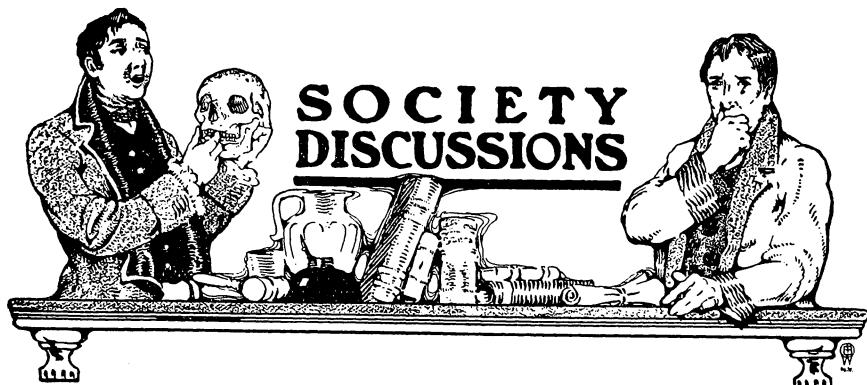
**A Positive  
Method of  
Fusing Porcelain.**

In conclusion there is one other method of very accurately arriving at the correct fusing of porcelain by use of the pyrometer. Some dentists prefer a long exposure, believing the porcelain to be benefited by it. Others make the fuse as quickly as possible. In either case no matter what the voltage is or how slowly or rapidly the furnace heats, if the needle is brought to the point where the fuse is to be obtained before placing the porcelain in the furnace and then held there the length of time indicated by tests necessary for correct results, those results will be uniform.

If a long run is decided upon it must be at a lower heat than would be used for a short run. The needle should be allowed to go a little higher at first than the point to which it is to be held to allow for the slight cooling of opening the door and inserting the work. The heat is maintained by moving the rheostat lever back and forth as required.

It is possible this method is best of any known.





## SOCIETY DISCUSSIONS

### New Jersey State Dental Society, Thirty-sixth Annual Meeting.

The Thirty-sixth Annual Meeting of the New Jersey State Dental Society was held at the Auditorium, Asbury Park, N. J., July 18, 19 and 20, 1906. The President, Dr. J. E. Duffield, called the meeting to order and after the roll call presented the President's address, which follows:

#### President's Address.

It gives me much pleasure to stand before you to-day the president of this great and powerful society. When I refer to this organization as great, it is not in a spirit of boastfulness, but with the full knowledge of the phenomenal strides and advances made along not only the most scientific and technical subjects brought before the profession, but also in those apparently minor details which so materially assist the rank and file of our profession in becoming better practitioners and more valuable components of a community.

Without question, the wonderful advances made by the profession of dentistry have largely been accomplished through the efforts of the various dental societies, both state and local. To your President it would seem practically impossible for any practitioner to produce the best results and services unless he came in contact with his fellow men in society work. It matters not how energetic a student one may be, it is only by the interchange of ideas that one's perception is broadened and developed; therefore, in my official capacity in extending greetings to the members and friends of this society, permit me to urge upon each and every one the great responsibilities and possibilities of society work.



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While the past has required unusual efforts and vigilance, the future will be even more exacting; however, I am sure the same loyal and unselfish spirit which has been displayed in the past will continue in the future to make the work of this society pre-eminent, both at home and abroad.

The Thirty-sixth Annual Convention is the result of unceasing efforts on the part of your various committees, which work was commenced even before the closing of our last meeting, and has been steadily going forward to the successful culmination which you now behold. I am pleased indeed to publicly extend my thanks and appreciation to the various committees which have made possible the results of this administration; especially are the chairmen of the Essay, Exhibit and Clinic Committees to be commended, having surpassed those of any previous conventions in results accomplished.

**Appointment of Examiners.** There are, however, questions which should have our consideration at this time, inasmuch as they vitally concern the weal or woe of this organization.

Since the last annual meeting of the society, it has been necessary to appoint a member of the State Examining Board, to fill a vacancy caused by resignation. I should very much like to see a minute passed by this body making it obligatory that in such contingencies, a special meeting of the society should be called for action on the same; for while no better nor more capable man than the one appointed by Governor Stokes could be found, it makes possible the abuse of most excellent control which this society possesses of our state dental foundation—i. e., the examining board.

During the last year we have also accomplished another decided step in advance. I am sure you will be pleased to learn that it is now possible to hold the examination of candidates for licenses to practice dentistry in the State of New Jersey, at Trenton, the Board having been granted an appropriation sufficient to buy a part of the necessary equipment for holding the same at a given place. So far as I am aware, this is the only State in the Union which is thus equipped, enabling candidates to take their examinations without being subjected to the expense and fatigue of traveling from city to city, as heretofore.

**Paying Clinicians.** Another question of much importance, and which undoubtedly should receive careful consideration, is that of supplying clinicians for our annual meetings.

Through the hard work and earnest efforts of the various chairmen of your clinic committees, we have in the past succeeded in presenting clinicians of national repute and ability. Those who have served as chairmen of this committee in the past must well remember the

humiliation and chagrin occasioned by the position assumed by this Society in reference to paying the expenses of those who came before us in this capacity. Meeting as we do, at one of the most attractive resorts in the very height of the summer season, has made possible the results as you have known them; but do we, with all the power and influence we possess, wish to stand in the petty position of being practically the only Society, either state or local, which compels those who appear before us to do so at their own expense? Is it not a very unjust position to assume, and one that is wholly at variance with good business principles and progress?

I would also especially call attention to the most **Care of Children's Teeth.** excellent work accomplished by the Committee on the care of children's teeth in public schools; while this is, comparatively, a newly created department, it has made rapid strides during the past year in what is the most important field of operation in the profession, i. e., the care of children's teeth.

I would urge every member of this Society to put forth unusual effort in assisting in the laudable work of this particular committee.

The report of the committees on Materia Medica, Dental Literature and Prosthetic Dentistry will demonstrate the wisdom of continuing at least one member of this committee for a longer period than one year. The work accomplished during this session has been far in advance of other years, being largely due to the fact that while the personnel of this committee was, in a measure, changed, the chairman remained the same during the last year, which made possible uninterrupted investigation and research.

During the past year a healthy growth has taken place on the part of local societies, not less than four having been organized during that time; to all such societies throughout the State, we extend the right hand of fellowship and good will.

During the past year an attempt was made to change our present dental laws, which, had it succeeded, practically would have wiped out of existence the good work that this society and the State Board of Dental Examiners have been doing for twenty years. Owing to very efficient work on the part of our secretary that effort was defeated and the matter is not at all likely to come up at the next session so far as I can learn.

In conclusion I wish to thank the members of this Society for the honor conferred in selecting me as your president; also, the officers and members of the various committees for the hearty support and assistance which made possible the notable success of this convention.



## SOCIETY DISCUSSIONS

### Discussion of the President's Address.

The President's address presents matters which

**Dr. W. G. Chase.** I think should be discussed at this time, as has been the custom in years gone by, instead of referring it to a committee.

The work inaugurated last year in reference to the examination of children's teeth in the public schools, should receive more attention than it has in the past so that we can push this matter onward until the public school children have their teeth attended regularly.

The President recommends that a motion be made that in case of a vacancy in the examining board, a meeting of the society, or of the executive committee, which is practically the society, shall be held so that a suitable man may be recommended for appointment. While the law says the governor shall appoint in the case of a vacancy, and while heretofore the member who filled that vacancy has been always an acceptable one, yet the matter is open to harm through politics. It might be possible that some man might approach the governor and have some friend of his nominated to that office, who would be objectionable to our State Society and all safeguards should be thrown around our laws concerning the practice of dentistry and the men who occupy the position of examiners. Many men well fitted to practice dentistry from the standpoint of their knowledge, are unfitted to be examiners, while others have a natural talent in that direction and it depends very much upon the examiners whether candidates receive a fair test and whether the right men are admitted.

Our societies throughout the state show an added interest in the work of association and a growing appreciation of its advantages; otherwise there would not be so many local societies formed and this feature shows a great growth in the interest in our profession at large.

I am here this year simply as an on-looker, but

**Dr. C. S. Stockton.** I can not refrain from expressing my gratitude for the admirable address of the President. When I first had the pleasure of making his acquaintance I said to myself, "There is material for a President."

He has fulfilled my expectation and thoroughly deserves the rich reward of the Presidency of this splendid association. I congratulate Doctor Duffield and congratulate the society.

If I were here to talk at all my thought would be that from an experience of thirty-six years I can very truly say that every man practicing dentistry in the State of New Jersey makes a great mistake mentally, morally and financially, if he remains out of the membership of this State Society.



The only other thing that I will tax my feeble health at this time to say is that in my humble judgment it will be a mistake to seek any change in our law which has worked so long and so well. There have been in all these years but two changes of the kind referred to in the President's address. One by removal of a member from the State, when I was appointed to the vacancy—and you all know that no mistake was made then (laughter and applause); and again when owing to my ill health I tendered my resignation and you know too that no mistake was made then, in the appointment of the gentleman to fill my place, and I think those two instances are sufficient to establish the fact that we might better stay away from the Legislature.

Dr. Duffield has presented an admirable address

**Dr. Chas. A. Meeker.** but there is one suggestion in it that I am utterly opposed to and that is the payment of money to clinicians at our meetings. Some fifteen or twenty years ago we had hard work to get clinics, but now with the reputation our society has earned, it is an honor for any one to come before us to clinic, without the payment of any money.

Massachusetts and Connecticut introduced the policy suggested by our President a few years ago and I understand that they are getting heartily tired of it. It takes a great deal of money and the real attraction at our meeting consists of the exhibits and clinics. I believe it is a mistake to pay clinicians; the honor of coming before a scientific meeting such as this, which draws its attendance from a radius of two or three hundred miles, is sufficient recompense. This year we sent out fourteen hundred programs and since that time more than fifty gentlemen have taken the time and trouble to write and ask for a program because they wanted to attend this meeting. I think it would be a mistake to pay gentlemen to clinic for us.

I would like to say further in regard to Dr.

**Dr. Chase.** Stockton's remark that I do not understand it to be the purpose of the President to recommend a change of the law but simply to have the society suggest to the Governor the name of the man to be appointed to fill a vacancy.

As to clinicians, while it is undoubtedly an honor to appear before this society, yet there is often considerable expense connected with it and it takes not only the clinician's time, but his money as well. While, as a rule, I do not believe in paying clinicians unless they come from a long distance, yet I do not see where there can be anything wrong in paying a man to come and clinic before any society. We do not pay the men who read papers, we do not even entertain them; they pay their own hotel bills and their own railroad fares, besides losing their time—which,



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however, is probably not lost. But it must be remembered that one who clinics, sees but little of the other clinics, he gets little himself and gives all. The clinics are what really form our post-graduate course and that feature brings people to our meetings from all over the country and I believe clinicians should be paid a certain sum or at least a part of their expenses should be paid. I know it is a hard thing to get people to clinic sometimes. I heard a gentleman recently say that he had been invited to go to the west to clinic and I asked him if he was going and he said he would go because he only lost his time, the society paying his hotel bill and railroad fare. I think the chairman of the Clinic Committee should be given some discretion, so that where a man of renown is desired to clinic some arrangement of that kind might be made.

On the subject of paying the expenses of clin-

**Dr. W. H. Jaquette.** icians I may say that I have had considerable experience, during the past year, and while we have presented before the society a class of clinicians which has never been excelled by this or, I think, any other State Dental Society, yet the matter is vital. It is not merely the paying of their expenses to one dental convention. Almost any dentist would consider it an honor to clinic before this society. But I had a letter from a gentleman in Camden who declared that he would be glad to come, but that since last March he had given eighteen clinics. So you can see that it is often a matter of time as well as mere expenditure.

I was very much pleased with the address of

**Dr. G. E. Adams.** the president; it certainly showed a great deal of thought, but I fear that some of the members here are under a slight misapprehension as to the suggestion made by the president concerning the appointment of a member of the board in case of a resignation. My understanding of it is that he suggests there shall be a meeting of the society called.

**President Duffield.**

Quite right, Dr. Adams.

From some of the remarks of the members it

**Dr. Adams.** seems to be understood that a meeting of the executive committee, which is the society, as stated by the gentleman, is sufficient. I beg to differ with the gentleman who made that remark; also with his understanding of the suggestions made by the president.

I do not think I quite caught Dr. Adams's idea.

**Dr. Chas. H. Meeker.** Under our previous law, when there was a vacancy in the Board of Examiners, the society was called together to suggest a member to fill that vacancy, and they voted on the man whom they wanted and recommended his appointment to the gov-



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ernor. That law was repealed; why, I have never found out. But I think that is the proper way. I think the whole society should have a voice in the matter of the suggestion.

**Dr. Adams.** May I ask Dr. Meeker when that law was repealed, and whether that is the reason why on two different occasions there has been a quiet appointment of somebody to fill a vacancy made by resignation, without the society having anything to say about it until it was publicly announced?

I never knew that law had been repealed, and that explains something that I have been wondering over for a number of years.

**Dr. Meeker.** Yes, the law was repealed by ex-Governor Voorhees's action, when counsel of the Board. I remember voting in a board meeting on the subject and as I remember you were there that day.

**President Duffield.** Had Governor Voorhees any right to repeal a law enacted by this society?

**Dr. Meeker.** No, he had not. He was counsel of the Board then.

**President Duffield.** I would like to add a few words in explanation of my address.

In the first place we all, your president included, feel that the man appointed to fill the unexpired term of Dr. Stockton was the one whom we would like to have. But should not this society have the right to suggest who shall fill a vacancy? If a meeting were called we might possibly not have a quorum, but I think the society in all justice should have been notified that there was a vacancy to be filled at a certain time, and not the executive committee. I wish to be clearly understood. My idea is that in case of a vacancy the secretary should be instructed to send notice to all members of the society that a special meeting would be held for that purpose.

In reference to paying clinicians, personally I would rather favor increasing our exhibits to the limit, and if necessary decreasing the volume of clinics and increasing the quality, and paying for that quality a reasonable price. There are some things in this society which we could dispense with without very much loss, and which would materially increase our revenue. I do not think it would be any hardship financially if this society contributed towards the payment of the expenses of clinicians. I do not mean to pay men who come from Philadelphia or nearby places; but suppose you want a man to come from Buffalo, a man of national repute, and who would give an attractive and instructive clinic. Do you not think it would be proper that we pay a part of the expenses, or that we at least should entertain him? We do not even do that.



## SOCIETY DISCUSSIONS

May I say just one word further. I am afraid  
**Dr. Adams.** I may have been misunderstood. I do not wish any  
one here to think that I would not have voted, had

I been given the opportunity, for either of the two gentlemen who were appointed by the governor; that is not the point. My only experience in the appointment of any one by reason of the death of a member was at the time when Dr. Levy died, and there was a meeting of the society called at which somebody was recommended, Dr. Meeker, I believe, for appointment by the governor. And I never knew until now, I had never been told before the reason why the other two members, Dr. Stockton to fill the unexpired term of Dr. Osmun, and Dr. Sutphen to fill the unexpired term of Dr. Stockton, were so quietly appointed. It seems very strange to me, too, that I did not know of the repeal of that section of the law. If any action was taken upon it there must be the record somewhere, and I would be very glad if the secretary of the board will show it to me.

I am fully in favor of the suggestion made by the president that the members of the society could be called together in case of a vacancy in the board; that is what the original intention was, and it should continue.

As to the payment of clinicians it seems to me as I have always contended in the case of the essayists, that they have a great honor shown to them when they are invited to clinic before this society. It is an honor to clinic before this society; it is an honor to clinic before any dental society that has any such membership as we have, or any such attendance as we have at our meetings, and I feel that there are many eminent gentlemen who would be glad to come before the society without having their expenses paid.

**Dr. Meeker.** If I may be permitted to speak once more I can enlighten Dr. Adams.

Mr. Voorhees, before he was governor, was the counsel of the Board and Dr. Brown and Mr. Voorhees prepared the bill; in changing the law they left that part out and the draft of the act was read before the Board of Examiners one night; I do not suppose there is any record of it—it was merely a verbal discussion. I said it was wrong at the time to leave out that section, which gave the society a voice in the choice of the appointee to fill a vacancy; but it was left in that way to pass both Houses and was signed by the governor, and has been a law ever since. But there is an easy method of meeting the situation; let some one offer a resolution that when there is a vacancy in the Board caused by death or resignation, the Secretary of the State Society be authorized to call a meeting of the Society, and then let the members



## ITEMS OF INTEREST

present choose a member of the society and send his name to the Governor, and ask that he be appointed to fill the vacancy.

The legal matter that has been referred to does not appeal to me, but there is one matter mentioned in the president's address that has been brought to us from a year ago that does personally appeal to me.

At that time I felt very strongly inclined to have something to say, but I have put it off until now and am very glad for the opportunity which now arises. I refer to the suggestion made by our president that it will be a most excellent plan to have the teeth of children attending the public schools examined by competent dentists. It has always seemed to me that one of the worst things that a man could say to another man is: "There is something desperate the matter with you," unless he had some way by which he could cure the difficulty. I, therefore, am not in sympathy at all with the president's suggestion so far as it has gone, but I would be in sympathy with a suggestion that might be made if we are as charitably disposed as I believe we are, to remedy the difficulties that we see. Now, suppose we had a committee appointed to go around among the schools of our cities and examine the teeth of our children, what could we say to the parents of these children? "Send them to some dentist;" but would it not be very much better for us to show our charity, and say, "If you can not afford to pay for this there are those of us in your city or town who will give certain hours of every week to do this work." If we had something to offer of that kind to the various Boards, that would be a proper kind of message to send to them. But if you were to say to them: "Have the children's teeth examined," they will say: "What good will that do?" I have had personal experience along that line and I know that is true. But if I can say to the Board of Education: "If you allow us to examine the children's teeth and we find defects we will show you a way by which they can be treated," then the result will probably be different. If this society wants to agitate something of that kind, I would be only too glad to devote certain hours of the week to such charitable work. But if I were to do so I might be accused of advertising. If that could be done by every member of the State Dental Society and through its recommendation, then we will accomplish something this year, and more than has been accomplished in many years even by the New Jersey State Dental Society.

May I have just one more word, on the subject of the care of children's teeth. I am very much interested in that work. A number of years ago it was suggested to me by one of the members of this society that there was need



## SOCIETY DISCUSSIONS

of somebody to look after the teeth of the children in one of the large orphan asylums, and I felt that it was my duty to see what I could do to help them out. I proffered my services and they were accepted, and at some irregular intervals I visited this orphan asylum, and it is almost impossible for you to conceive the condition of affairs I found in the mouths of some of these children. By careful work and treatment of these teeth, and extractions according to my best judgment, there has been a wonderful change up to the present time, and if you could see the mouths of a great many of the poor children in the schools you would find conditions existing that you can not now realize.

I am very much interested in the subject of the

**Dr. H. S. Sutphen.** care of children's teeth. I spoke of it in my address three years ago and I am heartily in sympathy with the remarks of our member from Newark (Dr. Dobbins) who truly says that we have gone far enough in making recommendations—why not act? The subject was referred to last year and it got so far as a recommendation by the president and the appointment of a committee to examine the subject. What is the use of doing that? The time has come for discussion to end and for work to begin—it should have been done years ago. Let us take the initiative, not only in recommendation, but in action.

I have nothing further to say in closing this

**President Duffield.** discussion beyond what I said in my previous remarks. I thank you very much for the liberal discussion which has taken place on my address.

President Duffield then resumed the chair.

The Secretary read a communication from Dr. Holly Smith, of Baltimore, expressing his regret at his inability to attend the meeting.

Also a communication from the chairman of the Press Committee explaining arrangements that had been made for reports of the meetings in the public press.

Also a letter from Dr. J. Allen Osmun, a former member of the society, and now of California, congratulating the society, and sending his personal greetings to the members of the society.

Also a letter from the New Jersey Southern Dental Society announcing the appointment of delegates to attend this meeting.

On motion all of the above communications were received, and placed on file.

Dr. Dilts, chairman of the Committee on Membership, reported the following applications for membership:

Dr. Edward P. Condict, of Trenton, N. J. Sponsors: Drs. Ginnelly and Heazelton,



Dr. Ella M. Hinds, of Newark, N. J. Sponsors: Drs. Hull, Luckey and Duffield.

Dr. James F. Moon, Paterson, N. J. Sponsors: Drs. Ritemire and Naylor.

Dr. George Robert Moon, of East Orange. Sponsors: Drs. Ritemire and Naylor.

Dr. Henry Fowler of Harrison, N. J. Sponsors: Drs. Meeker, Gregory and Stockton.

Dr. R. C. Fowler, of Harrison, N. J. Sponsors: Drs. Meeker, Gregory and Stockton.

Dr. W. H. Brackett of Cranford, N. J. Sponsors: Drs. Duffield and Meeker.

Dr. H. D. Haggerty of Hackensack, N. J. Sponsors: Drs. Brinkman and Meeker.

The society then proceeded to ballot for the election of the above named applicants, all of whom were elected to membership.

On motion adjourned until eight o'clock, P. M.

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### Wednesday, July 18, 1906. Evening Session.

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President Duffield called the meeting to order. There being a quorum present the roll-call was by unanimous consent dispensed with. President Duffield then introduced Dr. Eugene S. Talbot, of Chicago.

Mr. Chairman and President: When your com-

**Dr. E. S. Talbot.** mittee invited me to prepare a paper for this society

I was just finishing a line of research work on the subject of interstitial gingivitis, covering over six years. It was necessary to prepare three papers, one on etiology which was read in Milwaukee in May, one on diagnosis, read both at Lisbon and at Boston last month, and a third paper on treatment which it is my intention to read to-morrow morning.

The discussion is such a large one that it would require six lectures or six papers to give you an idea of the pathology and treatment of the alveolar process. After studying in my mind how to present it to you it appeared to me that a short paper this evening on etiology and pathology, and a lantern lecture, would give you a fair idea of the condition of things, so that you would then understand the paper on treatment to-morrow morning. So with your permission I will read you the short paper and then give you the lantern lecture.

Dr. Talbot then proceeded to read his paper.



## SOCIETY DISCUSSIONS

### Discussion of Dr. Talbot's Paper.

Dr. M. T. Schamberg. I consider it an honor to be called upon to discuss Dr. Talbot's paper, and it is furthermore a pleasure to me to have the opportunity of being here this evening and seeing the Doctor's slides, many of which are entirely new to me and many of which tend to indicate the immense amount of work that Dr. Talbot has done in this direction.

I do not think we at the present time, realize the value of his work; that only time will tell whether he is working in the correct channels, and whether we must treat pyorrhoea and interstitial gingivitis as two separate diseases; or whether we must eliminate those constitutional elements that tend to effect faulty metabolism in the gum tissue. It is evident from the pictures shown upon the screen that there are constantly taking place changes within the alveolar process; changes which we could scarcely conceive of if they were not shown so vividly before our eyes. We work largely in the dark; our work is more or less empirical until we acquire knowledge of the facts or they are established by the work of such investigators as Dr. Talbot, Dr. Latham, of Chicago, or Dr. Williams, of London, whose work tends to disclose these pathological changes which mean so much to us in our daily practice. A man is really a martyr to the cause of dentistry when he takes up research work of this kind, and without any possibility of remuneration to himself, or benefit to himself in his practice, but merely for the purpose of arriving at a truth, a truth which benefits humanity, which benefits the dental profession, which raises it above the standard of a mechanical calling to that of a science and puts it on a plane with other specialties in medicine.

I can not help but express my feelings in regard to Dr. Talbot's work because I have been so much impressed this evening, probably more so than ever before with the immense amount of work he has been doing.

Take these various changes, the change which the essayist refers to as osteomalacia, which we know to be a disease more or less common among women during pregnancy; and it is just as likely to be possible during various periods of stress, as the Doctor terms them, in our lives. There are times when the system is called upon to perform functions which necessarily make that particular term a period of stress, and during these periods of stress the alveolar process, on account of its being one of the end organs, is particularly liable to pathological changes.

The essayist spoke of over-eating and over-drinking, and emphasized over-eating as one of the causes for these changes, and I quite agree with him. I do not believe that we realize how much our indiscretions in diet and in other directions tend to influence the mucous membranes of the



## ITEMS OF INTEREST

mouth and the nutrition of the teeth generally. His allusion to the period of stress between the ages of sixty and sixty-four created a little mental distress on my part for the reason that yesterday I operated in St. Joseph's Hospital, in Philadelphia, for a very bad necrosis of the jaw, the patient being a woman some sixty-two years of age, and when I went into her room this morning I found her just as free from any of the after-effects of ether as any one could possibly be. I was really astounded. Yesterday her urine showed a trace of albumen which indicated she was suffering somewhat from the toxic effects of pus absorption from this necrotic mass. But I came away from Philadelphia with a promise to return upon call in the event of any change for the worse in the patient's condition, and when the essayist spoke of the danger period between the ages of sixty and sixty-four my mind naturally went back to this patient who had just been subjected to another extra strain, the strain of taking ether, and I believe the Doctor will agree with me that ether and anything of that kind which is difficult to eliminate from the system is effective in producing changes in the tissues of the mouth.

I am really coming to believe that the saliva is as much an excretion as a secretion, for the reason that the workers in salmeology tell us that they are able to diagnose various diseases by an examination of the saliva, and I believe, when the subject is worked out fully, we will be able to refer to the saliva as freely as we refer to the urine for various maladies to which the human economy is heir.

I do not want to take too much time for there are probably others who would like to discuss Dr. Talbot's paper, and I believe there may be others, who, if they do not care to discuss it, would like to give expression of their appreciation of his wonderful work.

I have no hesitation whatever in indorsing Dr.

**Dr. G. A. Mills.** Talbot's paper. I have had correspondence with him for two or three years, and it is my extreme pleasure to say that Dr. Talbot, in my mind, after an observation of fifty-four years in practice, is the only man to-day who is leading up to original ideas in dental pathology. It has not been my lot, nor my nature, perhaps, to be a student, but I have been a man of observation, and it would be strange, after the fifty-four years of active life I have pursued in dentistry, if I did not come to some extreme convictions in regard to these matters, and I am proud to say I have had conceptions along these lines in reference to the exciting causes of what we called a disease, pyorrhœa alveolaris. I have had a talk with Dr. Talbot to-day, and I have told him my convictions, and I believe the time will come when he will prove what I have already put on record in regard to the exciting causes of that disease

—it is not a disease, it is the result of a disease. I am conscious of that, and have been for years.

I do not feel that I can say very much on the subject presented by my friend Dr. Talbot, except to note that he has reached a parting of the ways. We have perhaps proceeded too much on mere mechanical lines and the question arises whether we do not in many cases do as much harm as good, but the essayist has pointed out another way—find out what the real cause is lying back of the trouble to be combated; the pathological conditions we must ascertain, and how they should be treated. I think the paper is most admirable along that line.

Just before leaving home I read an interesting paper by Dr. Kirk on calcareous deposits in the mouth. The question is often asked, why is it that salivary calculus forms around the teeth? Dr. Kirk, I think, has given us probably the first scientific solution of why that deposit takes place. It is not simply from the salivary secretions of the mouth, but it is the chemical changes that take place which form that deposit. If we can find some way in which we can hold those salts in solution, we have made one advance in the direction of these pathological conditions of which the essayist has spoken. Of course, above and beyond all this there are certain things which we can not reach. No matter how carefully we live we can not prevent getting old, and as time goes on age brings with it certain disabilities; the machine, no matter how well it is taken care of, or how well oiled or carefully tended, begins to wear out. We must recognize that as a limitation upon our powers.

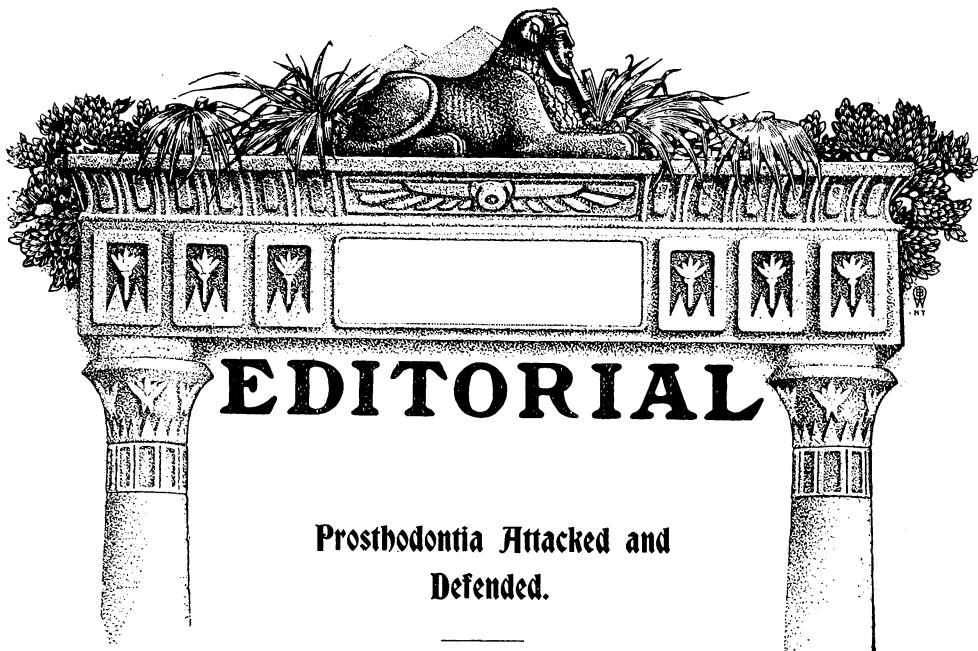
I congratulate the doctor on the paper, and I know I shall read it with a great deal of pleasure, interest and profit.

While I can not discuss Dr. Talbot's paper, I want to say as a member of the New Jersey State Dental Society that I feel proud of the fact that Dr. Talbot has delivered this lecture in New Jersey and I believe every Jerseyman who is a member of our State Society has the same feeling.

I looked back, this evening, to the time when I was a student of Heitzman, and when I heard this paper and saw the slides on the screen I thought how little Heitzman really knew when he taught us away back in 1884.

The subject was then passed for the evening.

Adjourned until Thursday, July 19, 1906.



Just ten years ago ITEMS OF INTEREST presented the dental world with the word "Prosthodontia," which was coined to replace the double term "prosthetic dentistry." It was chosen because of its etymological correlation with "orthodontia," a name previously applied to the first branch of dentistry which seemed apt to grow into a separate specialty.

Almost from the outset Dr. George Wilson, a gentlemen deservedly prominent as a prosthetic dentist, opposed the new word, and from time to time he has attacked it, but never before with such energy as in a paper presented to the National Dental Association at Atlanta, for which reason it seems timely to review the argument.

**Dr. Wilson's  
Arguments Against  
Prosthodontia.**

Dr. Wilson must have devoted a great deal of time and labor in the preparation of his Atlanta paper, in which he discusses most of the terms used in prosthetic dentistry, as he offers the definitions of the various words from several of the standard lexicons, for which reason his paper, when published, will serve an admirable purpose. But let us see what he says of "prosthodontia."



"Prosthodontia; from two Greek words meaning to replace teeth. While the word is perfectly formed it is too restricted in its meaning and conveys a very erroneous and detrimental idea; therefore it should be banished from dental nomenclature."

The sentence is certainly severe, and one might naturally expect that the "judge" would supply in place of the banished term one which conveys neither an erroneous nor a detrimental idea. His alternative for "prosthodontia" is "prosthesis," which presently we will measure according to Dr. Wilson's own standards.

Dr. Wilson tells us that "prosthodontia" is both erroneous and detrimental. To what extent is it erroneous? How has it proven detrimental?

It is erroneous, according to Dr. Wilson, because "it is too restricted." It is coined from two Greek words which mean "to replace teeth." From a purely philological viewpoint, if words coined from foreign roots are to be restricted solely to their exact derivative meanings, about a quarter of the so-called "English words" must be expunged from the dictionaries. But the wealth of our language, the many variations of thought and ideas possible to the English tongue, more than to any other, is due to the fact that we borrow from other languages without adhering too closely to etymological meanings. Let Dr. Wilson turn again to his dictionaries and see what he finds in regard to such words as "passion," "execution," "humanitarian," and hundreds of others, and he will discern how impoverished is his argument that "Prosthodontia" must be restricted to the replacement of teeth, merely because the original roots have that significance.

But is he not begging the question even from the dental aspect? The broad distinction between operative dentistry and mechanical, later called prosthetic dentistry, is that one attempts to save the natural dental organs, while the other furnishes artificial substitutes. And in the final analysis what else is the work of the prosthetic dentist? Occasionally he may make an interdental splint for a fractured jaw, or an obturator for a cleft palate sufferer, but even these instruments occasionally carry teeth. At all events, the bare fact that sometimes a prosthetic dentist may make some things which do not replace or supply teeth; or that when furnishing teeth he must also in a degree restore facial contours, is no argument



against the term "prosthodontia" as applicable to that art, the chief function of which is "to replace teeth."

Has the word proven detrimental? Prior to its coinage we often heard of mechanical dentists, and once in a while of a prosthetic dentist. But how many really prominent names were there associated therewith? We think of Bonwill, and then stop to ponder for a second name.

Ten years ago this magazine started a special department devoted to the mechanical side of dentistry. To dignify that branch of dental art we introduced the word "Prosthodontia," with what result? Men, and prominent men, have willingly contributed and the department of Prosthodontia has been a conspicuous feature of our magazine ever since. More than that, other journals have inaugurated special departments of similar nature. Dr. Wilson himself is editor of one of these. Yet no magazine had thought mechanical dentistry, or even prosthetic dentistry, worthy of special space prior to the advent of the department of Prosthodontia in ITEMS OF INTEREST. Then how has it been detrimental?

**Dr. Wilson's Substitute Term.** Dr. Wilson prefers "Prosthesis." In defining this word he places in brackets the words (Stand. and Gould) which must indicate that he has consulted those two lexicons. Then he gives us the following: "The replacing with an artificial substitute a lost part or organ. (Special) The science, art and eshetics of restoring a lost dental organ or organs and associate parts with an artificial substitute." (W.)

It is evidently in this last "special" definition that Dr. Wilson finds comfort. But he overlooks that this is a special meaning applied by a single lexicographer, and that it is not the general meaning, nor the etymological meaning of prosthesis. If we must so rigidly follow etymology in considering "prosthodontia" why not also with "prosthesis"? Prosthodontia was coined for a definite place and meaning in dental nomenclature, and has no other meaning whatever. On the contrary prosthesis originally had and still has a meaning foreign to dentistry, and only becomes a part of dental terminology because prior to the advent of "prosthodontia," there was nothing better.

Let us see what Dr. Wilson's own authorities say of prosthesis. Gould says, "1. Substitution of an artificial for an natural part; replace-



ment of a missing part by an artificial substitute. 2. That part of surgery which is devoted to supplying by artificial means, parts that are defective." Then follows: "Dental Prosthesis; the replacement of the loss of one or more teeth by an artificial substitute."

Thus we find, according to one of Dr. Wilson's dictionaries, that prosthesis means anything but what he wishes us to believe; and that it is only Dental Prosthesis, a double term, which enters our terminology at all, and then is accorded the identically restricted meaning which he has chosen, erroneously, to allot to prosthodontia.

The Standard Dictionary lends him no better aid. Of prosthesis we learn that its original, its derivative meaning is: "The addition of a letter or letters to a word, especially at the beginning." As a surgical term "The making of artificial parts and fitting them to the body; as false teeth, cork legs, glass eyes, etc."

Assuredly if prosthodontia is too "restricted" in its meaning, "prosthesis" seems to be too unrestricted.

But if prosthodontia must be "banished from dental nomenclature" because it is derived from two Greek words that mean "to replace teeth," the objection being that the practitioner in that field must likewise restore adjacent parts, what are we to do with its analogue "orthodontia," derived from two Greek words that mean "straight teeth." Will the modern orthodontist admit that his work is restricted to the straightening of teeth? Does he not likewise endeavor to refashion faces, and to correct nasal deformities? Should we decide to banish orthodontia along with prosthodontia as being equally "too restrictive," can Dr. Wilson find us another term for this science, selected like "prosthesis" from the language of grammarians and general surgeons?

If not, may we not retain the very excellent and beautifully correlated words, orthodontia, orthodontist, and prosthodontia, prosthodontist?





IF A MAN should call himself a carpenter, you'd expect him to saw wood

- \* occasionally, wouldn't you? If he claimed to be in the undertaking
- \* line you'd think he would undertake something, once in a while, eh?
- \* Under-take, you know, is just a polite form of take-under. So the
- \* undertaker takes folks under; not necessarily down—just under.

\* \* \*

NOW WE HAVE a set of men in dental societies, whose duty it ought to

- \* be to take men down. If they really knew their business they would
- \* know that they are, as it were, the dental undertakers. But so far as
- \* I can see they never undertake anything.

\* \*

\* \* \*

THE FELLOWS I mean are the Ethics Fellows. On nearly all Dental

- \* Society stationery you'll find printed a list of the officers and com-
- \* mittees; not necessarily for advertising purposes, though it works that
- \* way if you accidentally use that paper for sending appointments to
- \* patients. However!

\* \*

\* \* \*

GENERALLY THERE IS an Executive Committee. Those Fellows work.

- \* Then there is a Clinic Committee, and those Fellows are no drones
- \* either. But the Ethics Committee? What do they do? I'm afraid
- \* those names are on the letter paper just to fill up a gap, or for orna-
- \* ment.

\* \*

\* \* \*

OF COURSE IF somebody should bring charges to the Ethics Fellows

- \* against somebody else, they would sit up and take notice. For instance,
- \* if some thoughtless youngster with more time on his hands than pa-
- \* tients, should be tempted by a glib canvasser for a Church Fair Pro-



## ITEMS OF INTEREST

\* gramme, and should be made to believe that a five dollar ad. would be  
\* mutually beneficial to himself and to the Church, with a big "C,"  
\* likely enough he'd get railroaded if some sneak should go and tattle  
\* to that Ethics Committee. \*

\* \* \*

BUT IF AN OLDER MAN is cute enough to work his bunco games so as  
\* to keep them within the Ethical Ropes, as it were, he may rope in as  
\* many of the Dear Public as he can inveigle into his place, and that  
\* Ethics Committee will be blind—stone blind; yes, and deaf too. \*

\* \* \*

JUST TO MAKE my point clear, I remember one occasion whereon a  
\* celebrated M.D. was addressing a meeting of Dental Fellows. And  
\* say! The way culture, fraternity and ethics rattled from the tip of that  
\* fellow's tongue, reminded one of the long roll of a drum. And "while  
\* he was a-doing it," as the children say, a circular was circulating  
\* around that room. \*

\* \* \*

ON ONE SIDE of that circular was the announcement of a Quack Dentist  
\* that he did work much better and much cheaper than other folks. On  
\* the other side it was explained that a co-operative society of working  
\* women had been formed for the purpose of obtaining cheaper medical  
\* service. Teachers, nurses, stenographers, shop girls, and others—any  
\* member of that society could have dentistry at a discount, which I  
\* guess wasn't far out of the way. But they could also have eyes ex-  
\* amined, glasses fitted, toes amputated and stomachs washed out at less  
\* than regular store prices, by applying to the parties named. They could  
\* have office attention by one Medical Man at a dollar per visit. \*

\* \* \*

AND THE NAME of that Dollar Doctor, and the name of the Medical Gen-  
\* tleman who was the Essayist of the Evening, contained exactly the  
\* same letters in the same rotation. Moreover, the office address was the  
\* same in each case. So some Folks got the wild idea that maybe—per-  
\* haps—that Ethical Essayist and that Dollar Doctor might be one and  
\* the same Fellow. \*

\* \* \*

IT JUST HAPPENED to happen that some of the Ethics Committee of  
\* that society were present and read that circular as it was passed around.  
\* They just smiled. Now a smile is an attractive addition to the face of  
\* a pretty girl, especially if she has her arms around your neck and is  
\* looking up. But a smile is no embellishment of the countenance of an  
\* Ethics Committee Fellow, when it ought to be wearing a scowl. \*



## ITEMS OF INTEREST

IMAGINE THE SENSATION that would have ensued if one of those  
\* Ethical Fellows had stood up and read that Circular aloud as a con-  
\* tribution to the discussion of that Ethical Essayist's Essay! But noth-  
\* ing like that happened! \*

I SUPPOSE those Dental Undertakers had left their shovels at home, or  
\* else they did not recognize that a burial was in order. \*

BUT LET US approach the milk in the cocoanut and have a drink of the  
\* nutrient fluid together. I am not advocating the admission of quacks  
\* and advertising men into Ethical Company. Though if you honestly  
\* inspect the situation you will discover that the real advertising crowd  
\* are not exactly pounding on the doors of our meeting-rooms and  
\* screeching for admission. On the contrary, we are constantly turning  
\* our megaphones in their direction and yelling, "You can't play in our  
\* yard," when if the truth were known, they have cellar doors of their  
\* own to slide on, and a few even have automobiles. \*

BUT IF THE ETHICS Committee really want work to do, there is work  
\* in plenty. Let them stop squinting at the Dental Quacks, and take  
\* a peep at the Hypocrites who are already sitting by our firesides. It  
\* is my view that the names of the essayists obtained by the Executive  
\* Committees, and those of the Clinicians collected by the Clinic Com-  
\* mittees should be submitted to the Ethics Committees, before they  
\* receive the Honor and the Advertisement—let us not mince terms—the  
\* Advertisement of places on the printed programmes of honorable dental  
\* societies. \*

PERHAPS YOU THINK this would not work, but really it would work  
\* wonders, and good would be done almost automatically. You see, your  
\* Dental Hypocrite, seeking the self-glorification of a place on a pro-  
\* gramme, is really a right cute party. He knows a thing or two. For  
\* instance, he knows that the Executive Committee's business is to get  
\* men on the programme. And he knows that the purpose of the Clinic  
\* Committee is the same. So he knows exactly how to work those two  
\* sets of Fellows. But if the Ethics Committee should operate along the  
\* lines described, it would become their duty to keep men's names off  
\* of society programmes. And your Hypocrite would be very shy in his  
\* dealings with a Committee whose members would not hesitate to de-  
\* nounce Charlataany, even though found within the sacred portals of the  
\* Dental Temple. \*



ITEMS OF INTEREST

REALLY I NEVER was in more deadly earnest about anything than I am ♦ about this. I just hate to see the Good Fellows of our beloved profession bruised by the human barnacles feeding, yea, and prospering on ♦ the life-blood of our brotherhood. ♦ ♦ ♦

JUST LET ME TELL you the latest tale that has reached me, and which ♦ has especially inspired this special pessimism, though I have heard ♦ other narratives equally unethical, though perhaps less lurid. ♦ ♦

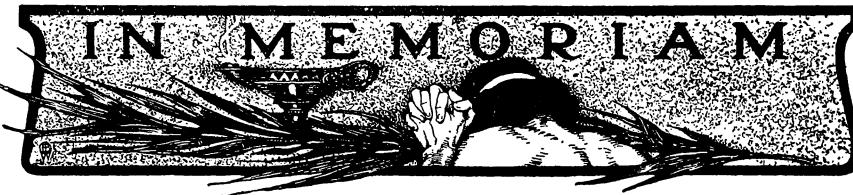
LAST YEAR a patient asked me this question: "Doctor, do you know any ♦ medicine worth forty dollars a bottle?" I admitted my ignorance of ♦ any such drug, and she continued: "I know a poor girl who is being ♦ treated and she is paying that price for medicine which the doctor sup- ♦ plies himself. It is not obtained by prescription. I think she is being ♦ humbugged, and that she has an incurable trouble. Anyway that man ♦ is getting all her savings." Then she told me the man's name. ♦ ♦

THIS YEAR I HEARD the sequel from a totally different source. A young ♦ surgeon asked me whether I knew this same man, and told me the fol- ♦ lowing: "One day he called me on the 'phone and asked me to admit ♦ to my hospital, as a charity patient, a girl who had no more money, ♦ and whom he had cured so that she just needed rest for a little time. I ♦ took her and found her needing immediate operation; and later, after ♦ consultation, a much more serious operation. She died on the table. ♦ When she came to the hospital she brought some medicine which she ♦ told us had cost her forty dollars a bottle. While she was with us the ♦ first man's office girl called often and brought flowers to the patient. ♦ She called on the day on which the girl died, and when she left, that ♦ forty-dollar medicine had disappeared." ♦ ♦

"DO YOU MEAN that she took it?" said I. "It was there before she came," ♦ he said, "and gone after she left. Did she take it? Quien sabe?" ♦ Then he mused a while and added, "I certainly should have liked to see ♦ an analysis of that medicine." ♦ ♦

IF YOU WERE I, and you heard stories like that, about men like that, ♦ and then noted that dental society committees gave those same men ♦ prominent places on prominent programmes, I think you would be, like ♦ me,

The Pessimist.



### **Dr. Edward Maurice Beesley.**

Dr. Edward Maurice Beesley died at his home in Belvidere, Warren County, N. J., September 17, 1906, of angina pectoris in the sixty-second year of his age. Dr. Beesley was born at Dennisville, Cape May County, N. J., June 22, 1845. He was educated at the West Jersey Academy, Bridgeton, and the Pennsylvania Dental College, in Philadelphia, where he graduated in 1867. He started on his professional career at Absecon, but in the fall of 1871 he went to Belvidere where he had continuously lived and practiced.

He was a man who stood high in his profession and in 1893 he was made president of the State Dental Society, and for ten successive years was on the examining board.

He served as sergeant-at-arms in the New Jersey Senate from 1870 to 1873 and in 1882 was engrossing clerk of the same honorable body.

In November, 1873, Dr. Beesley married Carrie A., the only daughter of the late Israel Harris, who for forty years was cashier of the Belvidere National Bank. She died March 26, 1903, but he is survived by two daughters, Dr. Eleanor Beesley and Mrs. Frank Mathews, of Brooklyn, and one son, Maurice, who enters his senior year in the Pennsylvania Dental College, of Philadelphia, where his father graduated. He is also survived by two sisters; Mrs. Julia Townsend, of Philadelphia, and Miss Rhoda Beesley, of Dennisville.

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### **Dr. Dwight Moses Clapp.**

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Dwight Moses Clapp, D.M.D., of Boston, died at his summer home in Lynn, Mass., Sept. 18, 1906. Though failing in health for the last three years he continued to give himself unsparingly to the exacting cares of his profession until on June 4 over-work brought on a severe attack of heart disease from which he never fully rallied. Taken to his summer home at Lynn on Aug. 1, he failed rapidly and the end came after weeks of great suffering.



The death of Dr. Clapp removes from Boston a man of those varied interests and broad human sympathies which the practice of the healing art in all its branches seems so often to develop.

He was born in Southampton, Mass., on June 5, 1846. His early education was secured in the public schools of his native town and was supplemented by a course at Westfield Academy. Immediately upon graduating from this institution he began the study of dentistry in the office of Dr. H. M. Miller of Westfield. Later, he studied with Dr. James Lewis of Burlington, Vt., then, being eager to acquire not only all that it was possible to learn of his chosen profession in this country, but also in Europe, he went abroad in 1869 and for a year was associated with Dr. Charles R. Coffin, of London, Eng., and afterward with Dr. Mason, of Geneva, Switzerland.

Upon his return to the United States, Dr. Clapp began the practice of dentistry in Boston, where he remained until his death. His influence in his profession grew steadily from the beginning. In 1882 the Harvard Dental School conferred the degree of D.M.D. upon him and offered him the chair of instructor in operative dentistry, which he occupied for a year. In 1890 he became clinical lecturer in operative dentistry in the Harvard School, a position which he held until his death. In 1899 he was made a member of the administrative board of the Harvard Dental School, and remained on the board during the rest of his life.

Dr. Clapp's services to dentistry were by no means confined to his relations with the Harvard Dental School. He was the author of the chapter on "Combination Fillings" in the "American Textbook of Operative Dentistry," and of numerous articles contributed to the various dental magazines. He served at various times as president of the Harvard Dental Alumni Association, the Massachusetts Dental Society and the Harvard Odontological Society; held membership in the Boston Dental Improvement Society, the American Academy of Dental Science, the National Dental Association, the New England (afterward the Northeastern) Dental Association and the New York Institute of Stomatology; and for a period of ten years was a member of the Massachusetts Board of Registration in Dentistry.

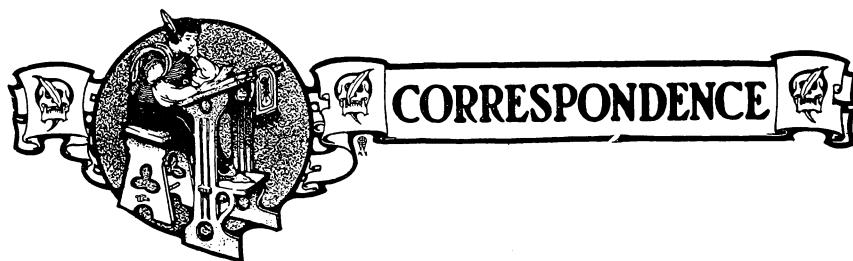
No man had a wider circle of professional acquaintances nor stood higher among them, and yet, wide as were Dr. Clapp's interests in his profession, they absorbed only a part of his energy and sympathies. Through his membership in the Boston Art Club, the University Club, the Oxford Club of Lynn, the Appalachian Club and other organizations to which he belonged, he sought and found the companionship which nourished his devotion to art, literature and out-door life. The love of Nature, especially in its wilder aspects, was a vital concern with him.



He was a member of long standing in the Megantic Fish and Game Club, and owned a camp in the Maine woods, where he was accustomed to spend a large portion of each summer. When professional duties kept him from these longer trips, he found wholesome recreation in other outdoor sports.

It speaks eloquently of Dr. Clapp's qualities as a man that most of his intimate friends and his associates in his sports were those whom he first knew only as patients. Men went to him for his professional skill, but having once fallen under the spell of his unusual personality, they became permanently his friends.

In May, 1872, Dr. Clapp was married to Miss Clara Josephine Simonds of Lynn, daughter of Henry Simonds. She survives him. Of their union two children were born, Ethel, who died at the age of six years, and Howard, who survives him, and whose choice of his father's profession and whose association with his father in his practice were a source of great happiness to both.



### New Jersey Board Commended.

*Editor Items of Interest:*

DEAR SIR:—I enclose a few remarks on the magnificent treatment the candidates for licenses to practice dentistry in the State of New Jersey received from the board of examiners. All the examinations of this session were held in the State House at Trenton, with such conveniences as no candidate ever dreamt of. In the practical operative dentistry department, we had dental folding chairs (placed in the assembly chamber) properly mounted, small tables with basin, pitcher of water, etc. In the practical prosthetic department each candidate was supplied with blow-pipe, bellows, tubing, laboratory bench and Lewis stove for heating and soldering our examination plates. The theoretical examinations were held in the assembly chamber as usual with the same conveniences as at other examinations.

A. P. SUSSMAN, D.D.S.

Bayonne, N. J.



# SOCIETY ANNOUNCEMENTS

## National Society Meetings.

American Society of Orthodontists, New York, December 27, 28, 29, 1906.

Institute of Dental Pedagogics, Chicago, December 27, 28, 29.

National Dental Association, Minneapolis, Minn., July 30, 1907.

## National Dental Association.

At the tenth annual session of the National Dental Association, held at Atlanta, Georgia, September 18-21, 1906, the following officers were elected for the ensuing year.

President, A. H. Peck, Chicago, Ill.

Vice-President for West, D. J. McMillen, Kansas City, Mo.

Vice-President for East, George E. Hunt, Indianapolis, Ind.

Vice-President for South, George S. Vann, Gadsden, Ala.

Recording Secretary, Charles S. Butler, Buffalo, N. Y.

Corresponding Secretary, Burton Lee Thorpe, St. Louis, Mo.

Treasurer, A. R. Melendy, Knoxville, Tenn.

## Executive Council.

H. J. Burkhardt, Batavia, N. Y.

J. Y. Crawford, Nashville, Tenn.

Charles McManus, Hartford, Conn.

F. O. Hetrick, Ottawa, Kansas.

B. Holly Smith, Baltimore, Md.



### Executive Committee.

C. M. Work, Ottumwa, Iowa.

V. H. Jackson, New York City, N. Y.

Thomas P. Hinman, Atlanta, Ga.

The next place of meeting will be Minneapolis, Minn., July 30, 1907.

BURTON LEE THORPE,

Corresponding Secretary.

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### Institute of Dental Pedagogics.

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The Fourteenth Annual Meeting of the Institute of Dental Pedagogics will be held in Chicago on the 27th, 28th and 29th of December. The following subjects will be discussed:

Teaching of Anaesthesia: the Emergencies, How Treated, How Prevented.

Teaching of Prosthetic Technic.

Teaching of Operative Technic.

Teaching of Porcelain Technic.

A Method of Teaching Orthodontia.

Teaching of Materia Medica.

Report of Committee on Dental Nomenclature.

W. EARL WILLMOTT.

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### G. V. Black Dental Club of St. Paul.

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The members and friends of the G. V. Black Dental Club of St. Paul (Inc.), will hold their annual Midwinter Clinic in February, 1907.

Last year we held the largest, best and most enthusiastic meeting ever held in the Northwest, between 400 and 500 practitioners being in attendance. This year we wish to have an attendance of 1,000.

The program is now being arranged by the Clinic Committee. The Operative Clinic will be on its usual high order. There will be a number of Progressive Clinics on both days of the meeting. Several of the best known men in the dental profession will read essays.

The Table Clinics will be the most interesting and instructive which we are able to obtain. The program and dates on which the meeting will be held will shortly be published.



As this is the only Midwinter Clinic held in this section of the country, I take greatest pleasure in extending a most cordial invitation to the members of the dental profession in the United States and Canada to attend our Clinic.

Special rates on all railroads. For any further information apply to  
R. B. WILSON, Secretary,  
No. 107 East Sixth Street, St. Paul, Minnesota.

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### **Ohio State Dental Society.**

The Forty-first Annual Meeting of The Ohio State Dental Society will be held in Columbus, December 4, 5 and 6, 1906.

A program of varied and exceptional interest has been provided and we even hope to surpass the very successful meetings of recent years. The papers are of the best, the clinics numerous and instructive, the exhibits extensive and complete.

The membership of this society has nearly doubled in the last three years. If you are not a member and are eligible *come and join*—but  
COME!

F. R. CHAPMAN, Secretary.

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### **Oklahoma Board of Dental Examiners.**

There will be a meeting of the Oklahoma Board of Dental Examiners held at Oklahoma City, on November 6, 7, and 8, 1906, for the purpose of examining candidates for license. For necessary blanks and information address the secretary.

A. C. HIXON, Secretary.

Guthrie, Okla.

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### **Maryland State Board of Dental Examiners.**

The Maryland State Board of Dental Examiners will meet for examination of candidates for certificates November 7 and 8, 1906, at the dental department of University of Maryland, Baltimore, at 9 a. m.

For application blanks and all information address

F. F. DREW, Secretary.  
701 N. Howard St., Baltimore, Md.



## New Jersey State Dental Society.

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The following officers were elected for the ensuing year: M. R. Brinkman, D.D.S., president, Hackensack, N. J.; Walter Woolsey, D.D.S., vice-president, Elizabeth, N. J.; Charles A. Meeker, D.D.S., secretary, 29 Fulton St., Newark, N. J.; Herbert S. Stuphen, D.D.S., asst. secretary, 14 East Kinney St., Newark, N. J.; Dr. Henry A. Hull, treasurer. Executive Committee: Walter Woolsey, D.D.S., chairman, Elizabeth, N. J.; W. A. Jaquette, D.D.S., Salem, N. J.; Harvey Iredell, New Brunswick, N. J., Frank G. Gregory, D.D.S., Newark, N. J.; C. H. Dilts, D.D.S., Trenton, N. J. Membership Committee: Wallace F. Naylor, D.D.S., chairman, Somerville, N. J.; B. L. Rhone, D.D.S., Asbury Park, N. J.; C. P. Tuttle, D.D.S., secretary, Camden, N. J.; G. L. D. Tompkins, D.D.S., Asbury Park, N. J.; F. K. Heazelton, D.D.S., Trenton, N. J.

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## New Hampshire State Board of Registration in Dentistry.

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The next meeting of the New Hampshire Board of Registration in Dentistry will be held at Masonic Banquet Hall, Manchester, N. H., December 11, 12, 13, 1906, for the examination of all applicants to become registered in this state.

A. J. SAWYER, Secretary.

Manchester, N. H.

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## District of Columbia Board of Dental Examiners.

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The Board of Dental Examiners of the District of Columbia will conduct their semi-annual examination at the Dental Department of the Georgetown University, Wednesday, Thursday and Friday, January 2, 3 and 4, 1907. All applications for examination must be accompanied with a fee of \$10.00. For further information address

Wm. B. DALEY, Secretary.

1311 Rhode Island Avenue, N.W., Washington, D. C.



## Ohio State Board of Dental Examiners.

The regular semi-annual meeting of the Board of Dental Examiners of the State of Ohio will be held in Columbus, commencing November 27, 1906.

Only graduates are eligible to examination.

Application accompanied by fee (\$20.00) should be filed with the Secretary by November 17. For further information address

H. C. BROWN, Secretary.

185 East State St., Columbus, Ohio.

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## Kentucky State Board of Dental Examiners.

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The Kentucky State Board of Dental Examiners will hold their next meeting for the examination of applicants the first Tuesday in December. Every applicant must be a graduate of a reputable Dental College. For further information address the President of the Board.

J. RICHARD WALLACE,  
"The Masonic," Louisville, Ky.

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## New Jersey State Board of Registration and Examination in Dentistry.

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The New Jersey State Board of Registration and Examination in Dentistry will hold their semi-annual meeting to examine candidates in the State House, Trenton, N. J., beginning Monday, December 10, and continuing through the 11th, 12th and 13th. Sessions begin promptly at 9 a. m.

Practical and theoretical work completed at this session.

For information apply to the secretary, Charles A. Meeker, D.D.S., 29 Fulton Street, Newark, N. J.

All applications must be in the hands of the secretary ten days prior to the meeting.

CHARLES A. MEEKER, D.D.S.,  
Secretary.



## **Illinois State Board of Dental Examiners.**

The regular annual meeting of the Illinois State Board of Dental Examiners for the examination of applicants for a license to practice dentistry in the State of Illinois, will be held in Chicago, at the Chicago College of Dental Surgery, cor. Wood and Harrison Sts., commencing Monday, November 12.

Persons in possession of the following requirements will be eligible to take the examination: First, "all persons who have been engaged in the actual, legal and lawful practice of dentistry or dental surgery in some other state or country for five consecutive years just prior to application; second, or is a graduate of and has a diploma from the faculty of a reputable dental college, school or dental department of a reputable university; third, or is a graduate of and has a diploma from the faculty of a reputable medical college, or medical department of a reputable university, and possess the necessary qualifications prescribed by the Board."

Candidates will be furnished with proper blanks and such other information as is necessary upon application to the secretary. All applications must be filed with the secretary five days prior to the date of examination, and the diploma must be presented at the time of matriculation.

Address all communications to

J. G. REID, D.D.S., Secretary.

1204 Trude Bldg., Chicago, Ill.

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## **Iowa State Board of Dental Examiners.**

The Iowa State Board of Dental Examiners will hold its next meeting at Iowa City, beginning at 9 A. M., Tuesday, December 4, 1906.

Written examination in all the regular college branches, also practical work in operative dentistry. Engines will be furnished, but instruments and materials must be furnished by the applicant.

Applications must be in hands of secretary at least five days prior to above date. For application blanks and further information address

E. D. BROWER, Secretary.

Le Mars, Iowa.